26904

National Library of Canada | Bibliothèque nationale du Canada

CANADIAN THESES ON MICROFICHE | THÈSES CANADIENNES SUR MICROFICHE

NAME OF AUTHOR/NOM DE L'AUTEUR James Parker Robertson

TITLE OF THESIS/TITRE DE LA THÈSE Administrative Skills Development Needs of Alberta School Principals

UNIVERSITY/UNIVERSITÉ University of Alberta.

DEGREE FOR WHICH THESIS WAS PRESENTED/GRADE POUR LEQUEL CETTE THÈSE FUT PRÉSENTÉE Master of Education

YEAR THIS DEGREE CONFERRED/ANNÉE D'OBTENTION DE CE GRADE 1975

NAME OF SUPERVISOR/NOM DU DIRECTEUR DE THÈSE Dr. E.J. Ingram.

Permission is hereby granted to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

L'autorisation est, par la présente, accordée à la BIBLIOTHÈQUE NATIONALE DU CANADA de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans l'autorisation écrite de l'auteur.

DATED/DATÉ September 16, 1975 SIGNED/SIGNÉ J. P. Robertson

PERMANENT ADDRESS/RÉSIDENCE FIXE 18 Belmore St
Wollongong,
N.S.W 2500.
Australia.

NL-91 (3-74)

THE UNIVERSITY OF ALBERTA

ADMINISTRATIVE SKILLS DEVELOPMENT NEEDS OF ALBERTA SCHOOL PRINCIPALS

by

© JAMES PARKER ROBERTSON

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDMONTON, ALBERTA

FALL, 1975

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled ADMINSITRATIVE SKILLS DEVELOPMENT NEEDS OF ALBERTA SCHOOL PRINCIPALS submitted by JAMES PARKER ROBERTSON in partial fulfilment of the requirements for the degree of Master of Education.

Supervisor

Date. . . September 12, 1975. . .

Abstract

The purpose of this study was to identify and examine the administrative skills development needs of Alberta school principals. An instrument entitled the Administrative Processes Questionnaire was developed by the researcher using the Miklos (1968) matrix which describes the Components of the Administrative Process in Six Operational Areas of Educational Administration. The questionnaire required respondents to estimate their actual and needed level of skill in the performance of processes related to the operational areas of school program, pupil personnel, staff personnel, community relations and school management. Respondents were also requested to record the priority they placed upon the development of the skill as a school administrator.

Descriptive and inferential statistics were employed to analyze the data, and statistical significance was reported when the obtained probability was not greater than .05.

The first section of the data analysis focussed upon differences between means for perceived actual and needed level of skill in performing processes using the total sample. Significant differences were found for all processes identified, except planning in the area of staff personnel.

This was followed by an analysis of the priorities for skills development as reported by respondents and an analysis of discrepancies between means for perceived actual and needed level of skill in the

performance of processes. It was found that processes related to the operational areas of staff personnel, school program and pupil personnel had the highest priorities for skills development. The discrepancy analysis indicated that the single process most in need of development was evaluation.

The final analysis considered perceptions of actual and needed level of skill in the performance of processes related to personal, educational and situational variables descriptive of respondents. Significant differences between means for perceived actual level of skill were found when respondents were grouped according to teacher education, availability of administrative assistance, time allocated to administration and the rural or urban location of the school. Few significant differences between means for perceived needed level were found in this analysis. This led to the conclusion that there is general agreement among school principals as to the level of skill required to perform administrative processes successfully.

Acknowledgements

The writer wishes to express his gratitude for the cooperation and willing assistance of a number of persons who made this study possible.

Appreciation is extended to my colleagues in the M. Ed. Program in Educational Administration for their help and advice in the preparation of the instrument used in the study. Thanks are also extended to Mrs. J. Purcell for typing the questionnaire and to the Council on School Administration for their assistance in its distribution.

Computer processing of the data for this study was expedited by the assistance of Mrs. C. Prokop and the staff of the Division of Educational Research. I am extremely grateful for their help and consideration.

A special vote of thanks is due to Ms. L. Stolee for her excellent service in typing this document.

The writer wishes to express his gratitude to Dr. E. Ingram, his thesis advisor, and to the members of the thesis committee, for their constructive criticism and assistance throughout the study.

Finally I wish to express my gratitude for financial assistance granted by the Department of Educational Administration and the New South Wales Department of Education.

TABLE OF CONTENTS

CHAPTER		PAGE
1	Definition and Discussion of the Problem	1
	Introduction	1
	General Statement of the Problem	2
	Specific Statement of the Problem and Sub Problems	3
	Research Problem	3
	Sub Problems	3
	Theoretical Framework	4
	Technical Skill	6
	Human Skill	6
	Conceptual Skill	6
	Assumptions	7
	Limitations	8
	Definition of Terms	9
	Administration	9
	Components of the Administrative Process	9
	Planning	9
	Decision Making	9
	Organizing	9
	Co-Ordinating	10
	Communication	10
	Influencing	10
	Evaluating	10

TABLE OF CONTENTS (Continued)

CHAPTER PAGE

1 Definition and Discussion of Problem

Definition of Terms

Operational Areas of School Administration....10

School Program....10

Pupil Personnel....11

Staff Personnel....11

School Community Relations....11

School Management....11

Perception....11

Skill Discrepancy....11

Skill....12

Review of Related Literature....12

Organization of the Thesis....14

2 Research Design and Description of the Sample....15

Development of Instrumentation....15

Sample and Data Collection....17

Statistical Treatment of the Data....17

Description of the Sample....21

Chapter Summary....32

3 Analysis of Data for Total Sample: Factor Analysis and Differences Between Means....34

Factor Analysis of Data....34

TABLE OF CONTENTS (Continued)

CHAPTER PAGE

3 Analysis of Data for Total Sample: Factor Analysis and Differences Between Means

Analysis of Differences Between Means for Perceived Actual and Needed Level of Skill in Administrative Processes from Responses of Total Sample....39

School Program....39

Pupil Personnel....41

Staff Personnel....41

Community Relations....41

School Management....44

Chapter Summary....44

4 Analysis of Priorities for Skills Development....48

Priority Analysis....48

Discrepancy Analysis....53

Relationship Between Priority and Discrepancy Analyses....58

Analysis of Skills Development Needs....59

Chapter Summary....59

5 Relationships Between Perceived Actual and Needed Level of Skill of Respondents When Grouped By Personal Characteristics....61

Preliminary Analysis....61

Relationship Between Administrative Skill and Age..62

TABLE OF CONTENTS (Continued)

CHAPTER PAGE

5 Relationships Between Perceived Actual and Needed Level of Skill of Respondents When Grouped By Personal Characteristics

Relationships Between Administrative Skill and Accredited Teacher Education.....65

Relationship Between Administrative Skill and Availability of Administrative Assistance.....70

Relationship Between Administrative Skills and Time Allocated for Administrative Duties.....74

Relationships Between Administrative Skill and the Rural Urban Location of the School.....79

Chapter Summary.....83

6 Summary, Conclusions, Implications and Recommendations for Further Research.....86

Summary.....86

The Problem.....86

The Procedure.....86

The Findings.....87

Factor Analysis.....87

Differences Between Means for Total Sample.....87

Priority Analysis.....88

Discrepancy Analysis.....88

TABLE OF CONTENTS (Continued)

CHAPTER PAGE

6 Summary, Conclusions, Implications and Recommendations for Further Research

Summary

The Findings

Analysis of Perceived Actual and Needed Level of Skill Related to Variables Descriptive of Respondents.....89

Age.....89

Teacher Education.....90

Time Allocated for Administration....91

Availability of Administrative Assistance.....91

Urban Rural Location of the School...92

Conclusions and Implications.....92

Suggestions for Further Research.....97

BIBLIOGRAPHY.....99

APPENDIX A.....101

APPENDIX B.....113

APPENDIX C.....115

APPENDIX D.....119

LIST OF TABLES

Table		Page
1	Frequency and Percentage Distribution of Questionnaires Distributed and Returned	18
2	Frequency and Percentage Distribution of Questionnaires Analyzed	19
3	Frequency and Percentage Distribution of Respondents by Sex	22
4	Frequency and Percentage Distribution of Respondents by Years of Teacher Education	23
5	Frequency and Percentage Distribution of Respondents by Age Category	25
6	Frequency and Percentage Distribution of Respondents by Teaching Experience	26
7	Frequency and Percentage Distribution of Respondents by Administrative Experience	27
8	Frequency and Percentage Distribution of Size of Schools in Which Respondents are Principals	28
9	Frequency and Percentage of Administrative Assistance Available to Respondents	29
10	Frequency and Percentage Distribution of Types of Schools of Which Respondents are Principals	30
11	Frequency and Percentage Distribution of Rural or Urban Location of Schools in Which Respondents are Principals	31
12	Frequency and Percentage of Time Allocated By Respondents for Administrative Duties	33
13	Variables Related to Five Factors After Factor Analysis Using Varimax Rotation	36
14	Variables Related to Five Factors Rearranged for Factor Identification in Relation to Miklos' (1968) Matrix	37
15	Analysis of Differences Between Means of Actual and Needed Level of Skill in Processes Involved in School Program	40

LIST OF TABLES (Continued)

Table		Page
16	Analysis of Differences Between Means of Actual and Needed Level of Skill in Processes Involved in Pupil Personnel	42
17	Analysis of Differences Between Means of Actual and Needed Level of Skill in Processes Involved in Staff Personnel	43
18	Analysis of Differences Between Means of Actual and Needed Level of Skill in Processes Involved in Community Relations	45
19	Analysis of Differences Between Means of Actual and Needed Level of Skill on Processes Involved in School Management	46
20	Means, Standard Deviations and Rank Order of Actual Priorities for Skills Development	49
21	Priorities for Skills Development in Administrative Processes in Five Areas of Educational Administration From Priority Analysis	51
22	Discrepancy Analysis of Actual and Needed Level of Skills in Administrative Processes	54
23	Priorities for Skills Development in Administrative Processes in Five Areas of Educational Administration from Discrepancy Analysis	56
24	Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped by Age	63
25	Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped by Number of Years of Accredited Teacher Education	67
26	Significant Differences Between Means for Perceived Actual Level of Skill in Administrative Processes When Respondents are Grouped by Teacher Education	69
27	Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped by Availability of Administrative Assistance	71

LIST OF TABLES (Continued)

Table		Page
28	Significant Differences Between Means for Perceived Actual Level of Skill in Administrative Processes When Respondents are Grouped by Availability of Administrative Assistance	73
29	Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped by Time Allocated for Administration	76
30	Significant Differences Between Means for Perceived Actual Level of Skill in Administrative Processes When Respondents are Grouped by Time Allocated to Admini Administration	78
31	Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped by the Rural Urban Location of the School	80
32	Significant Differences Between Means for Perceived Actual Level of Skill for Respondents When Grouped by the Urban Rural Location of Their School	82
33	Summary of Significant Differences Between Means for Perceived Actual and Needed Level of Skill in Administrative Processes	84
34	Questionnaire Items Related to the Miklos Matrix of Administrative Processes in Five Areas of Educational Administration	114
35	Frequencies of Responses to Each Questionnaire Item	116

Chapter 1

DEFINITION AND DISCUSSION OF THE PROBLEM

Introduction

Over the past two decades it has been generally recognized by educational authorities that special education, over and above that required for teachers, is necessary for persons charged with the responsibility for the administration of public schools. This recognition has led to the establishment of graduate courses in educational administration. Many principals and aspiring principals have taken advantage of these courses, but it is now considered that an ongoing program of inservice education is necessary if the practice of the science of educational administration is to expand and flourish.

The present study has resulted from the expression of the need to develop inservice programs for educational administrators by the Council on School Administration of the Alberta Teachers' Association. This need was foreshadowed in 1960 by the American Association of School Administrators when it was suggested that

> To retain professional effectiveness, stature and dignity, the school administrator must continue steadfastly to improve himself; to remain abreast of, and often sharing in, innovations; to create for himself a disciplined program of inservice education (Misner, 1963, 31).

It is true that inservice education programs for administrators

are in existence today, but it is also true that there has been an expression of general dissatisfaction with many of these programs. Hermanowicz (1966, 16) found that the most frequently expressed criticism of inservice programs was that they were "dull and useless because they were too general, poorly timed or devoted mainly to administrative housekeeping." These sentiments are echoed by Harris (1969, 4) when he suggests that the prime reason for dissatisfaction with inservice programs is related to "failure to relate inservice program plans to the genuine needs of staff participants." He further points out that writing in the area has insisted that programs should be related to the needs as identified by participants. In many cases, however, they are often dictated by officials, with only superficial consideration of staff needs.

General Statement of the Problem

The purpose of this study was to examine the administrative skills development needs of Alberta school principals. This was deemed necessary for the preparation of effective inservice programs for educational administrators.

An additional purpose was to develop a means for measuring a principal's perception of his actual level of skill in performing an administrative process as well as his perception of the level of skill required for the performance of the process in the operational areas defined for the study.

The relevance, to the practising administrator, of the various skills identified in the study was also examined. For this reason a

priority scale was included in the instrument. This enabled respondents to indicate the emphasis that they placed upon the development of the identified skill as an administrator.

As this study is exploratory in nature it was considered that it would be useful to examine if perceptions of actual and needed level of skill in performing the administrative processes identified are related to personal educational and situational variables which are descriptive of respondents.

Specific Statement of the Problem and Sub Problems

Research Problem

To identify and examine the administrative skills development needs of Alberta school principals.

Sub Problems

1. To what extent are there significant differences between means for actual and needed level of skill in task performance as perceived by school principals?

2. To what extent is there a relationship between the priority for skill development and the discrepancy between actual and needed level of skill in task performance as perceived by school principals?

3. To what extent are perceptions of actual and needed level of skill in task performance related to variables descriptive of school principals? This sub problem may be expanded by examining the following research questions.

Are there statistically significant differences between means for actual and needed level of skill in the performance of tasks

as perceived by school principals when grouped according to the following descriptive variables?

Personal: Age

Educational: Years of Teacher Education

Teaching Experience

Administrative Experience

Situational: Rural or Urban Location of the School:

Time Allocation for Teaching and Administration

Availability of Administrative Assistance

Theoretical Framework

In a rather lighthearted introduction to his paper, Saxe (1966, 104) suggests that

> There are 27,000,457 different matters (give or take a million) which concern public school principals. Some of them are important. Some can be delegated to others. Some will tend to take care of themselves. Principals view matters differently and deal with them differently.

Although whimsical in nature, this quotation ably relates to the problem of a theoretical framework for this study. It was necessary to identify areas of concern to school principals and the administrative processes involved in dealing with them. Another feature of the study was the identification and measurement of the skills involved in performance of components of the administrative process in the operational areas being studied.

Brottman (1963, 1) when developing a theoretical framework for his study suggested that there are two possible approaches for conceptualization, namely the inductive and deductive methods.

In his discussion of the inductive method he states that

> events and actions begin to be perceived as possessing unique and recurring properties, and names are given to the identified elements of behaviour. Concepts arrived at in this inductive manner must satisfy the criteria of (1) organizing experience and (2) permitting communication about the objects of study through the meaningful use of names assigned to concepts.

This method has been the approach used in the study of administration since the publication of the work of Fayol at the turn of the century. In only comparatively recent times have the many tasks of the principal referred to above been identified and sufficiently refined for further study.

A concise exposition of the development of the application of general administrative principles to the study of Educational Administration is outlined by Miklos (1968, 1). He identifies the components of the administrative process in Educational Administration as planning, decision making, organizing, co-ordinating, communicating, influencing and evaluation. He goes on to apply these to the operational areas of school program, pupil personnel, staff personnel, community relations, physical facilities and school management. These processes and operational areas form the basis for the present study.

The second method considered by Brottman (1963, 1) was the deductive approach to the development of concepts.

> Concepts may also be derived by abstracting from general principles those elements that bear on a problem and lend themselves to empirical study.

In the present study the concepts for study were identified by the

application of the Miklos formulation outlined above. The problem of empirical measurement of the level of performance in the processes identified led to consideration of the definition of skill in administration.

Katz (1955, 33) in a discussion of the skills of an effective administrator makes the comment

> Performance depends on fundamental skills rather than personality traits. As used here skill implies an ability which can be developed, not necessarily inborn, and which is manifested in performance, not merely potential.

Implicit in this definition is that skill can be measured or at least observed. Katz goes on to point out that the "principal criterion of skillfulness must be effective action under varying conditions." In the further development of his paper Katz describes three basic skills upon which effective administration depends. These he calls technical, human and conceptual skills.

Technical Skill

> An understanding of, and proficiency in, a specific kind of activity, particularly one involving methods, processes, procedures or techniques.

Human Skill

> ability to work effectively as a group member and build co-operative effort within the team he leads.

Conceptual Skill

> What Chester Barnard implies when he says 'the essential aspect of the executive process is sensing of the organization as a

> whole and the total situation relevant to it'.

Katz's work was further developed by Reeves (1961, 3) and Downey (1961, 1). Both these writers conceived of the skills involved in Educational Administration as it applies to school principals as having four components, namely technical managerial, technical educational, human managerial and speculative creative. In using this conceptualization they have recognized the dual role of the principal as both instructional leader and manager of the school.

For the purposes of the present study a skill was conceived of as an ability to perform the components of the administrative process as outlined by Miklos (1968, 1). These skills are related to the operational areas as follows:

Technical Managerial--Physical Facilities

--School Management

Human Managerial--Pupil Personnel

--Staff Personnel

--Community Relations

Technical Educational--School Program

Speculative Creative--Skills which are an essential component for success in performance of processes in any of the operational areas.

Assumptions

The researcher made the following assumptions in regard to the research design and data analysis utilized in this study.

1. The instrument devised had both face and content validity.

That is it measured the respondent's perception of his actual and needed level of skill in performing the task identified.

2. The responses of participants to each item reflects the individual's perception of his actual and needed level of skill in performing the task identified.

3. The sample used for the analysis of data was representative and reflected the perceptions of the total population as to the actual and needed level of skill in performance of the tasks identified.

4. The Likert type scale for recording of responses had interval properties. This was necessary for the statistical analysis of data.

Limitations

Any inferences drawn from the data reported in this study may only be applied to the population studied.

Enns (1966, 1) when considering "perception in the study of administration" wrote:

> Perceptions are not simple accurate reproductions of objective reality. Rather they are usually distorted, colored, incomplete and highly subjective versions of reality.

This indicates what could be a severe limitation to the present study. However it is a well established fact in the social sciences that a person's perception of an event will often determine his behaviour. For this reason then the attempt to measure perceptions is considered to be legitimate, but should be noted as a limitation to the present study.

The total population of Alberta school principals was surveyed in this study. However less than fifty percent replied. This must be taken into account when implications are being drawn from the

statistical analysis of data. It may be that persons who are willing to respond in a questionnaire survey may have perceptions which differ from those who did not reply. The assumption above is necessary for the study, but may also prove to be a limitation to the application of the findings.

Definition of Terms

Administration

The American Association of School Administrators (1955, 17) define administration as

> the total of the processes through which human and material resources are made available and made effective for accomplishing the purposes of the enterprise.

Components of the Administrative Process

The following definitions are drawn from the work of Miklos (1968, 3).

Planning

> Planning involves the identification of goals and objectives for an organization and the consideration of alternatives which will lead to a logical and rational progression towards the accomplishment of these objectives.

Decision Making

> The process of determination of a particular course of action for solving a problem from the alternatives identified in the planning process.

Organizing

> An ongoing continuous activity which leads to a determination of means for the attain-

attainment of identified goals and objectives.

Co-Ordinating

The process of maintaining the relationship between parts of an organization. It involves allocation of human and material resources for the attainment of organizational goals.

Communication

The process of setting up appropriate channels to expedite the flow of information and decisions to various parts of the organization.

Influencing

A process which involves the use of power of position, interpersonal relationships and expertise to ensure that resources are available or that individuals work towards the attainment of organizational goals.

Evaluating

The process of examination of the results of an activity to see if goals are being achieved or how the effectiveness of the operation may have been improved.

Operational Areas of School Administration

The following define the operational areas of school administration used in this study. The definitions are drawn from the work of Miklos (1968, 5).

School Program

The numerous activities and processes which relate directly to the instructional goals of the school and the means intended to achieve these goals.

Pupil Personnel

The immediate client system of the school. The major tasks in this area relate to the organization and accounting of pupils and involves the provision of special services when it is considered they are needed.

Staff Personnel

All activities related to the provision of and administration of teaching and support staff.

School Community Relations

It is assumed that schools operate as an integral part of the community. Activities in this area are concerned with the form and frequency of contact between the school and the community it serves.

School Management

All activities required to ensure the smooth operation of the school and includes the compilation of records, reports, requisitions and inventories as well as correspondence and budgeting of available resources.

Perception

Wood, (1973, 9) defines perception as

> the process by which one attributes significance to his immedite environmental situation as influenced by the characteristics of the perceiver, characteristics of the perceived and the situational influences in which perception occurs.

Skill Discrepancy

Skill discrepancy refers to the absolute value of the difference between means for perceived actual and needed level of skill in

performing an administrative process as measured by the Administrative Processes Questionnaire.

Skill

The ability to perform components of the administrative process in an operational area of Educational Administration.

Review of Related Literature

An extensive search of literature in the field of Educational Administration and related areas revealed that researchers have not reported studies concerned with a person's perception of his level of skill in the performance of administrative processes. Instruments purporting to measure this have been reported in relation to the evaluation of school administrative staff by central office officials. Stemnock (1971) gives examples of self evaluation forms for administrators used by Peoria, Illinois and San Antonio, Texas school districts. However as these are confidential documents, reports of outcomes related to these self evaluations have not been published.

Melton (1971, 41) reports two parallel studies carried out in 1958 and 1968 which surveyed elementary principals as to "what they thought their roles were and what they thought they should be". Data was gathered by interview, questionnaire and a Q-sort technique. For the purposes of the questionnaire the principal's role was divided into six categories namely, curriculum and instructional leadership, personnel guidance, school community relations, administrative responsibility, evaluative responsibility and professional improvement. Subjects were required to give estimates of actual

and ideal time allotments to these categories. An analysis of discrepancies in both studies indicated that principals spend more time than they considered ideal on administrative and less time on curriculum and instructional leadership than they considered to be ideal. As a result of his study Melton suggested the following as implications for preservice and inservice education of administrators

> Help was requested in the areas of curriculum development, child growth and development theory, business administration and personnel evaluation. Workshops and seminars were recommended as possible means for providing knowledge in human relations, group processes, community involvement and guidance.

In a general study of the professional development needs of educational administrators Musella (1975) surveyed administrators from primary, secondary and tertiary institutions. The purpose of the survey was to establish content areas for inservice workshops to be conducted by the Ontario Council for Leadership in Educational Administration. The survey indicated that the areas considered to be of highest priority for development were staffing, curriculum and external relations. These three areas were expanded as follows.

Staffing: selection, supervision and evaluation of staff..

Curriculum: Curriculum and program design, development, implementation and evaluation of programs.

External Relations: Developing and maintaining external relations with the community, Ministeries, parents, federations and professional organizations.

The studies referred to in this section have only a tenuous relationship with the subject of this thesis. This reflects the difficulty experienced by the researcher in locating research literature relevant to the present study.

Organization of the Thesis

Chapter 1 has discussed the background to the present study. Research problems were identified and the assumptions and limitations under which the research was conducted were outlined. A theoretical framework, definitions of terms used and a short review of literature were also included in the chapter.

Chapter 2 describes the research design utilized and presents a description of the sample used in the study. This is followed by three chapters which describe the statistical analysis of data and presents the results of this analysis.

The concluding chapter summarizes the research findings, draws implications and offers suggestions for further research.

Chapter 2

RESEARCH DESIGN AND DESCRIPTION OF SAMPLE

The research design used in this study is outlined in this chapter. The development of instrumentation and methods used in data collection are described. This chapter concludes with a description of the statistical programs used in data analysis and the characteristics of the respondents who participated in the study.

Development of Instrumentation

The instrument used in this study is entitled the Administrative Processes Questionnaire (Appendix A). It was developed by the researcher using the Miklos (1968) matrix which describes the Components of the Administrative Process in Six Operational Areas of Educational Administration. The matrix identifies the components of the administrative process as planning, decision making, organizing, co-ordinating, communicating, influencing and evaluation. These were related to the operational areas of school program, pupil personnel, staff personnel, community relations, physical facilities and school management.

Items in the questionnaire were designed to give a verbal description which related the administrative processes to each of the operational areas. The researcher eliminated the operational area of physical facilities in the questionnaire construction as

it was considered that many principals would never have been involved in many of the processes outlined in the matrix.

The first draft of the questionnaire was evaluated in a graduate student seminar by members of the Master's program in Educational Administration. Following some suggested alterations the instrument was pilot tested on a small group of six principals who were invited to comment on format, understanding of the items and difficulty of responding. After incorporating some of these suggestions a final draft of the instrument was prepared and the items were randomly distributed. A matrix relating questionnaire items to the original Miklos (1968) matrix is appended (Appendix B).

For each of the thirty-seven items respondents were requested to make three responses: a) Estimate the level of skill you now have, in performing the process. b) Estimate the optimum level of skill required to perform the process successfully. c) Record the level of priority that you would place upon the development of this skill as an administrator. The responses for level of skill were recorded on a five point Likert Scale, the categories given were as follows: low, moderately low, average, moderately high and high. The priorities were recorded on a five point Likert Scale which ranged from low to high priority.

By recording responses in this way respondents were able to consider their level of skill development and give their perception as to whether they had more or less skill than required to accomplish the given task successfully. The priority scale was included to assess the importance attached to development of the

skill by the respondents. By combining the scales it was possible to determine skill deficiencies and priority job development.

The instrument also contained a personal data sheet with a number of multiple choice questions designed to measure the demographic variables: sex, age, teacher education, teaching experience, administrative experience, school size, school type, number of administrative assistants, time spent on administrative tasks and the rural, urban location of the school.

Sample and Data Collection

The questionnaire was distributed to all school principals in Alberta by mail. The total population was invited to participate in the study so that problems associated with sampling techniques were not experienced. Reply paid envelopes were provided for the return of completed forms. In all 1,317 questionnaires were distributed, of which 622 were returned and formed the sample for the study.

A total of 46 questionnaires were rejected from all analysis on the grounds that they were unusable because of missing data, late returns or refusal by respondents to complete the questionnaire. Tables 1 and 2 provide a statement of the questionnaires distributed and used in the study. To expedite analysis using electronic computer programs it was necessary to reject a further 42 questionnaires after the original frequency and percentage distributions had been computed.

Statistical Treatment of the Data

Statistical treatment of data in this study utilizes both descriptive and sampling statistic procedures. Ferguson (1971, 10)

Table 1

Frequency and Percentage Distribution of

Questionnaires Distributed and Returned

	N	%
Questionnaires Distributed	1317	100
Questionnaires Returned	622	47.2*

*Percentages have been rounded

Table 2

Frequency and Percentage Distribution

of Questionnaires Analyzed

	f	%
Questionnaires Returned	622	100
Questionnaires Fully Analyzed	534	85.7*
Questionnaires Partially Analyzed	42	6.8*
Questionnaires Rejected	46	7.4*
N	622	100.00

*Percentages have been rounded

describes descriptive statistics as

> Statistical procedures used in describing the properties of samples, or of populations where complete population data are available.

He further describes sampling statistics as

> Statistical procedures used in the drawing of inferences about the properties of populations from sample data. . .The application of these procedures provides information about the accuracy of the sample statistics as an estimate of the population statistic.

Descriptive statistics will be used therefore in the description of the sample and sampling statistics in the analysis of other data collected.

As indicated in the above the use of sampling statistics always involves the possibility of sampling error which arises when the characteristics of the sample are significantly different from those of the population. To contend with this problem a test of statistical significance, which indicates the probability with which the differences recorded in the sample may be attributed to differences in population rather than sampling error, is applied. In this study statistics with a probability level less than or equal to .05 are reported as being 'significant'.

In the computer analysis of data the following statistical programs prepared by the Division of Educational Research Services were used

NONP 10: Frequency and percentage of responses to each item of the questionnaire.

FACT 04: Factor analysis of perceived actual and optimum level of skill in Part A of the questionnaire.

ANOV 12: t tests for calculating significant differences between means for perceived actual and optimum level of skill in Part A of the questionnaire. This program is used when responses being compared are from the same sample and adjustments for correlations are necessary.

ANOV 10: t tests for calculating significant differences between means for responses to questionnaire items when the sample is split into independent groups using data collected in Part B of the questionnaire.

In the analysis of priorities the Spearman Rho correlation coefficient was calculated manually. The formula used was that given in Ferguson (1971, 305).

Description of the Sample

The response categories for the items included in Part B of the questionnaire were considered to be ordinal in nature. Frequency and percentage distributions were determined for each category within each item.

As some respondents failed to complete varying sections of the questionnaire the number of responses reported may vary from item to item. The size of the sample (N) is reported in all tables.

The frequency and percentage distributions for male and female respondents is presented in Table 3. The fact that females form only 10.5 percent of the sample is comparable with provincial statistics.

Examination of Table 4 shows that 95.6 percent of respondents are credited with four or more years of teacher education. Of these

Table 3

Frequency and Percentage Distribution

of Respondents by Sex

Sex	f	%
Male	514	89.5
Female	60	10.5
N	574	100

Table 4

Frequency and Percentage Distribution

of Respondents by Years of Teacher Education

Teacher Education	f	%
One Year	6	1.0
Two Years	6	1.0
Three Years	15	2.6
Four Years	193	33.6
Five Years	155	27.0
Six Years	200	34.8
N	574	100.0

33.6 percent have undergraduate education and 61.8 percent have post graduate education. Only 4.6 percent reported having less than four years of teacher education.

Table 5 describes the age of respondents according to age category. The table shows that 7.1 percent of the sample reported ages less than thirty years, while 13.8 percent reported that they were over fifty years of age. The majority of principals in the sample reported their age as between thirty and fifty years with 37.9 percent being less than forty years and 32 percent being between forty and fifty years.

Tables 6 and 7 show respondents' teaching and administrative experience in categories of interval size five years.

Table 8 gives an indication of the size of the schools of which the respondents were principals. Although not recorded in the table a total of eight respondents indicated that they were teaching in one room schools and four of these were principals of schools serving Hutterite colonies.

The number of personnel available to assist principals with administrative duties is recorded in Table 9. An administrative assistant was defined for the purposes of this study as a vice-principal or department head. It was found that 28.1 percent of respondents had no administrative assistance while 48 percent had only one such assistant. All other respondents, or 23.9 percent, reported having two or more administrative assistants.

School type as measured by grade distribution and the location of schools is recorded in Tables 10 and 11. Table 10 shows that 11.5 percent of respondents categorized their schools in a category other

Table 5

Frequency and Percentage Distribution

of Respondents by Age Category

Age Category (years)	f	%
20-24	2	0.3
25-29	39	6.8
30-34	91	15.8
35-39	127	22.1
40-44	102	17.7
45-49	82	14.3
50-54	53	9.2
55-59	58	10.1
60 or more	21	3.7
N	575	100

Table 6

Frequency and Percentage Distributions

of Respondents by Teaching Experience

Teaching Experience (years)	f	%
0-4	25	4.4
5-9	75	13.1
10-14	145	25.3
15-19	110	19.2
20-24	76	13.2
25-29	79	13.8
30 or more	64	11.2
N	574	100

Table 7

Frequency and Percentage Distribution

of Respondents by Administrative Experience

Administrative Experience (years)	f	%
0-4	115	20.2
5-9	207	36.0
10-14	110	19.1
15-19	66	11.5
20-24	48	8.3
25-29	22	3.8
30 or more	7	1.2
N	575	100

Table 8

Frequency and Percentage Distribution

of Size of Schools in which Respondents are Principals

School Size (Number of Teachers)	f	%
1-4	46	8.0
5-9	91	15.8
10-19	214	37.2
20-29	140	24.3
30-39	53	9.2
40-49	8	1.4
50-59	7	1.2
60 or more	16	2.8
N	575	100

Table 9

Frequency and Percentage of Administrative Assistance Available to Respondents

Number of Assistants	f	%
0	161	28.1
1	275	48.0
2	79	13.8
3-4	32	5.6
5-6	9	1.6
7-8	4	0.7
9 or more	13	2.3
N	573	100

Table 10

Frequency and Percentage Distribution

of Types of Schools of Which Respondents are Principals

School Type	f	%
Primary	18	3.1
Elementary	220	38.3
Junior High	42	7.3
Senior High	41	7.1
Grades 1-9	128	22.3
Grades 1-12	59	10.3
Other*	66	11.5
N	574	100

*Included schools with various grade groupings and special schools, i.e. schools for handicapped, detention centres and hospital schools.

Table 11

Frequency and Percentage Distribution

of Rural or Urban Location of Schools in Which

Respondents are Principals

School Location	f	%
Rural	243	42.3
Urban	332	57.7
N	575	100

than those noted on the questionnaire. The majority of these were schools which had classes for grades six to twelve but special schools such as hospital schools, schools in detention centres and schools for handicapped children were also included in this category.

Table 12 describes the amount of time spent on administrative duties by the respondents. The questionnaire asked them to record whether they spent more time on teaching or administrative duties but 6.3 percent indicated that they spent 50 percent of their time in each activity and so the third category is recorded in this table.

Chapter Summary

This chapter describes the research design and procedures adopted for the study. Methods used for construction of the questionnaire, data collection and data analysis were outlined.

The concluding section of the chapter described the personal characteristics of the 576 respondents who formed the sample for this study. Descriptive statistics were used in analysis of this data.

Table 12

Frequency and Percentage of Time Allocated by Respondents for Administrative Duties

Category	f	%
>50% Teaching	172	29.9
>50% Administration	367	63.8
50% Teaching-50% Administration	36	6.3
N	575	100

Chapter 3

ANALYSIS OF DATA FOR TOTAL SAMPLE: FACTOR ANALYSIS AND DIFFERENCES BETWEEN MEANS

This is the first of two chapters which report the analysis of data from the 534 questionnaires which were selected for study by the process outlined in Chapter 3. Appendix C provides a frequency table of responses to each questionnaire item.

Chapter 4 examines a factor analysis of responses to the section of the questionnaire concerned with the respondents' perception of their actual level of skill in each of the processes identified. The second part of the chapter presents an analysis of the difference between means for the respondents' perceived actual and needed level of skill in each of the processes.

An analysis of priorities for skill development is the focus of Chapter 5.

Factor Analysis of Data

The initial analysis of the data was a factor analysis of the questionnaire responses to both the perceived level of skill in each of the processes and the needed level of skill in these processes. Mulaik (1972, 15) suggested that exploratory factor analysis is often used

> where the researcher has some idea of what he will encounter but nevertheless allows the method freedom to find unexpected dimensions (or factors).

It was considered that factor analysis of the data was necessary as the questionnaire was not subjected to any rigorous pilot study in the developmental stages. The method of analysis used was a varimax rotation of axes. Factor groupings from five to thirteen factors were examined.

Examination of the communalities indicated that the trend was for the items to factor in terms of administrative areas rather than administrative processes. This led to an examination of the communalities associated with five factors in greater detail. The matrix of communalities is reproduced in Appendix D. The analysis reported here concentrates on the variables associated with respondents' actual level of skill as it was found that analysis of variables associated with needed level of skills yielded similar results.

The percentage of total variance contributed by the five factors identified was 43.66 percent. Table 13 presents a matrix of the factors upon which the thirty-seven variables loaded. The criterion for placement of a variable on a particular factor was a factor loading 0.300 or greater. This led to several variables loading on more than one factor and these are recorded in the table. The percentage of total variance contributed by each factor is also included.

When the table of variables is rearranged as in Table 14 there is some degree of relationship to the matrix of variables presented in Appendix B, which is a table of questionnaire items as they relate to Miklos' (1968) matrix of Administrative Skills in Five Areas of Educational Administration. A total of 56.78 percent of variables may be arranged to lie in similar position to those in the original matrix. A further seven variables may be identified by process but

Table 13

Variables Related to Five Factors

After Factor Analysis Using Varimax Rotation

Factor Number	1	2	3	4	5
	1, 4, 7	6, 14, 22	2, 5, 17	8, 10, 12	3, 11, 21
	9, 10, 11	29, 35, 36	23, 24, 25	15, 17, 19	24, 25, 26
	13, 16, 18		26, 27, 30	20	27, 32, 33
	21, 23, 27		31, 37		
	28, 30, 33				
	34				
% Total Variance	11.46	9.71	8.86	7.09	6.56

Table 14

Variables Related to Five Factors Rearranged for Factor Identification in Relation to Miklos' (1968) Matrix Used in Questionnaire Construction

	Factor Number				
Process	1	2	3	4	5
Planning	1, 7	35	25	12	25
Decision Making	9, 23	6	17, 23	17, 20	32
Organizing	27	14	24, 27	15	3, 27
Co-Ordinating	11, 34, 30	22	30, 31		11, 31
Communicating		29	2, 5, 37	19	
Influencing	10, 13		26	8, 10	26
Evaluation	18, 4, 33	36			33
	21, 28, 16				

Item numbers underlined relate to Miklos' (1968) Matrix.

are combined in factors 1 and 3.

Factor 1 contains variables 1, 9, 10 and 18 which relate to the area of school program. It also contains variables 7, 16, 23 and 30 which relate to the area of school management. This indicates that there is a high correlation between responses to both these areas. Factor 1 accounts for 11.46 percent of the total variance.

Factor 2 contains the variables 6, 14, 22, 29, 35 and 36 which is the totality of variables relating to the area of community relations. It is therefore identified as the administrative area of community relations and accounts for 9.71 percent of the total variance.

Factor 3 contains variables 2, 17, 24 and 31 which relate to the area of school program as well as variables 23, 30 37 which relate to the area of school management. This again suggests a high correlation between responses to items investigating these two administrative areas. Factor 3 accounts for 8.86 percent of the total variance.

Factor 4 contains variables 12 and 20 which relate to the area of staff personnel. It accounts for 7.09 percent of the total variance.

Factor 5 contains variables 3, 11, 25, 26, 32 and 33 which relate closely to questionnaire items investigating the area of pupil personnel. This factor is tentatively identified as the administrative area of pupil personnel and accounts for 6.56 percent of the total variance.

The above analysis indicates that Factor 2 describes the area of community relations and Factor 5 describes the area of pupil personnel. Factors 1 and 3 together describe the areas of school program and school management while factor 4 has minimal relationship to the area of staff personnel. This gives direction to further analysis of the data which examines administrative processes in the five areas of Educational Administration selected for the study.

Analysis of Differences Between Means for Perceived Actual and Needed Level of Skill in Administrative Processes from Responses of Total Sample

The second phase of the analysis focused upon statistical comparison between means of the perceived actual and needed level of skill in the administrative processes. These are grouped according to areas of Educational Administration.

The statistical method employed was a 't test' with corrections for correlated data. This was chosen, as the means for actual and needed level of skill in the processes were calculated using the total sample. It was assumed that the responses of individuals to each item were related. Correlation coefficients for responses to each item are reported in all tables presented in this section. The analysis of variance was used to determine significant differences between means and these are reported at the five percent level of significance.

School Program

The information presented in Table 15 indicates that there is a significant difference between the perceived actual and needed

Table 15

Analysis of Differences Between Means of Actual and Needed Level of Skill in Processes Involved in School Program

Process	Item Number	Actual Mean	Needed Mean	t	Probability	r[a]
Planning	1	3.39	4.17	-22.89	0.00*	0.38
Decision Making (1)	9	3.45	4.16	-19.80	0.00*	0.34
(2)	17	3.50	4.04	-14.58	0.00*	0.49
Organizing	24	3.72	3.94	-5.29	0.00*	0.37
Co-Ordinating	31	3.47	3.68	-6.28	0.00*	0.44
Communicating	2	3.68	4.09	-10.87	0.00*	0.27
Influencing	10	3.37	3.94	-14.89	0.00*	0.29
Evaluation	18	3.24	4.11	-22.57	0.00*	0.33

N = 534 df = 533

*Significant at 0.01 level

[a]Correlation between responses

level of skill in all administrative processes related to school program. In all cases the mean score for need level of skill was significantly greater than the mean score for perceived actual level of skill.

Significant differences were obtained at the .01 level of probability.

Pupil Personnel

Examination of the information presented in Table 16 indicates that there is a significant difference between the means for perceived actual and needed level of skill for all processes involved in the administrative area of pupil personnel. In all cases the mean needed level of skill was significantly greater than the mean of the perceived actual level of skill at the one percent probability level.

Staff Personnel

Table 17 presents information which indicates that there is a statistically significant difference between perceived actual and needed level of skill in all but one process involved in the administration of staff personnel. The difference of means for the process of planning failed to reach statistical significance even though the mean for the needed level of skill is numerically greater than the perceived actual level of skill. The difference between means for all other processes involved in the administration of staff personnel were statistically significant at .01 level of probability.

Community Relations

The analysis of differences between means for perceived actual

Table 16

Analysis of Differences Between Means of Actual and Needed Level of Skill in Processes Involved in Pupil Personnel

Process	Item Number	Actual Mean	Needed Mean	t	Probability	r[a]
Planning	25	3.34	3.59	-6.13	0.00*	0.36
Decision Making	32	3.27	3.62	-9.44	0.00*	0.46
Organizing	3	3.42	3.78	-8.74	0.00*	0.34
Co-Ordinating	11	3.28	3.68	-9.83	0.00*	0.36
Communicating	19	3.60	4.03	-10.11	0.00*	0.27
Influencing	26	3.62	4.10	-13.98	0.00*	0.48
Evaluation (1)	4	3.29	3.91	-15.64	0.00*	0.29
(2)	33	3.17	3.63	-11.71	0.00*	0.33

N = 534 df = 533

*Significant at 0.01 level

[a]Correlation between responses

Table 17

Analysis of Differences Between Means of Actual and Needed Level of Skill in Processes Involved in Staff Personnel

Process	Item Number	Actual Mean	Needed Mean	t	Probability	r[a]
Planning	12	3.55	3.58	-0.71	0.48	0.29
Decision Making	20	3.68	4.12	-10.59	0.00*	0.39
Organizing	27	3.70	4.11	-11.18	0.00*	0.35
Co-ordinating	34	3.25	3.92	-16.86	0.00*	0.36
Communicating	5	3.81	4.34	-13.80	0.00*	0.27
Influencing	13	3.03	3.73	-16.57	0.00*	0.33
Evaluation (1)	21	2.95	3.55	-12.40	0.00*	0.37
(2)	28	2.95	4.00	-23.65	0.00*	0.19

N = 534 df = 533

*Significant at 0.01 level

[a]Correlation between responses

and needed level of skill in administrative processes, involved the administrative area of community relations, is presented in Table 18. In all cases the mean needed level of skill was greater than the perceived actual level of skill and these were significant at the .01 level of probability.

School Management

Table 19 presents the analysis of differences between means for processes involved in the administrative area of school management. Again in all cases the perceived needed level of skill is statistically significantly greater than the perceived actual level of skill in each process at the .01 level of probability.

Chapter Summary

The statistical analysis in this chapter utilized data collected for the total sample used in the study. It was found that factor analysis of the responses denoting respondents' actual level of skill in the processes identified factor analyzed into five factors which were identified tentatively as the five areas of educational administration under examination in this study. The factor analysis did not isolate all variables in terms of area but isolated a sufficient number to enable a trend to be established.

The latter part of the chapter was concerned with the analysis of differences between means for all items of the questionnaire which were grouped in the areas identified for study. It was found there were statistically significant differences between the means of the perceived actual and needed level of skill in all processes except planning in the area of staff personnel administration. The

Table 18

Analysis of Differences Between Means

of Actual and Needed Level of Skill

in Processes Involved in Community Relations

Process	Item Number	Actual Mean	Needed Mean	t	Probability	r[a]
Planning	35	3.06	3.72	-16.89	0.00*	0.43
Decision Making	6	3.32	3.83	-12.82	0.00*	0.32
Organizing	14	3.13	3.71	-13.54	0.00*	0.37
Co-Ordinating	22	3.02	3.36	-8.61	0.00*	0.45
Communicating	29	3.33	3.86	-14.34	0.00*	0.39
Evaluation	36	3.14	3.75	-15.45	0.00*	0.42

N = 534 df = 533

*Significant at 0.05 level

[a]Correlation between responses

Table 19

Analysis of Differences Between Means of Actual and Needed Level of Skill on Processes Involved in School Management

Process	Item Number	Actual Mean	Needed Mean	t	Probability	r[a]
Planning	7	3.29	3.78	-12.5	0.00*	0.32
Decision Making	23	3.56	3.89	-8.65	0.00*	0.32
Organizing	15	3.49	3.61	-2.71	0.01*	0.37
Co-Ordinating	30	3.41	3.74	-9.52	0.00*	0.42
Communicating	37	3.76	3.98	-6.34	0.00*	0.40
Influencing	8	3.53	3.79	-6.71	0.00*	0.31
Evaluation	16	3.08	3.73	-15.23	0.00*	0.28

N = 534 df = 533

*Significant at 0.01 level

[a]Correlations between responses

mean for needed level of skill was numerically greater than that for perceived actual level of skill in all cases.

Chapter 4

ANALYSIS OF PRIORITIES FOR SKILLS DEVELOPMENT

This chapter examines priorities for skills development from two aspects. The first is concerned with a ranking of means from the priority scale for each item in the Administrative Processes Questionnaire. This is followed by an analysis of discrepancies between the means for the perceived actual and needed level of skill in performing the processes referred to in the Administrative Processes Questionnaire. The discrepancy as defined earlier is interpreted as an indicator of skills development needs.

The chapter concludes with a correlation analysis of relationships between the two methods of determining priority.

Priority Analysis

The data in Table 20 consists of the means, standard deviations and the rank of means of responses to the priority scale for each item in the questionnaire. Where items had equal mean priority they were assigned a rank by the process for tied ranks discussed by Ferguson (1971, 307). This method was chosen as it provides for the calculation of the Spearman Rank Order Coefficient of Correlation later in the analysis.

The data from Table 20 is reorganized and presented in priority order in Table 21 which also identifies the items in terms of the administrative processes and operational areas to which they refer

Table 20

Means, Standard Deviations and Rank Order of Actual Priorities for Skills Development as Reported by Respondents

Item	Mean Priority	Standard Deviation	Rank
1	3.96	1.15	2
2	3.91	1.11	5
3	3.47	1.21	21
4	3.61	1.14	15
5	4.15	1.12	1
6	3.51	1.12	19
7	3.37	1.08	26
8	3.48	1.09	20
9	3.92	1.14	3.5
10	3.65	1.12	13
11	3.32	1.12	29
12	3.28	1.25	33.5
13	3.40	1.12	25
14	3.30	1.14	32
15	3.32	1.10	29
16	3.31	1.12	31
17	3.81	1.21	8
18	3.84	1.12	7
19	3.80	1.12	9
20	3.92	1.18	3.5
21	2.89	1.29	36

Table 20 (Continued)

Item	Mean Priority	Standard Deviation	Rank
22	2.96	1.09	37
23	3.55	1.10	18
24	3.61	1.17	15
25	3.21	1.18	35
26	3.79	1.15	10
27	3.90	1.11	6
28	3.67	1.13	12
29	3.58	1.13	17
30	3.42	1.06	23.5
31	3.43	1.12	22
32	3.32	1.14	29
33	3.28	1.09	33.5
34	3.61	1.16	15
35	3.33	1.17	27
36	3.42	1.14	23.5
37	3.73	1.09	11

Table 21

Priorities for Skills Development in Administrative Processes in Five Areas of Educational Administration From Priority Analysis

Priority (Rank)	Item	Process	Area
1	5	Communicating	Staff Personnel
2	1	Planning	School Program
3.5	9	Decision Making	School Program
3.5	20	Decision Making	Staff Personnel
5	2	Communicating	School Program
6	27	Organizing	Staff Personnel
7	18	Evaluation	School Program
8	17	Decision Making	School Program
9	19	Communicating	Pupil Personnel
10	26	Influencing	Pupil Personnel
11	37	Communicating	School Management
12	28	Evaluation	Staff Personnel
13	10	Influencing	School Program
15	4	Evaluation	Pupil Personnel
15	24	Organizing	School Program
15	34	Co-Ordinating	Staff Personnel
17	29	Communicating	Community Relations
18	23	Decision Making	School Management
19	6	Decision Making	Community Relations
20	8	Influencing	School Management
21	3	Organizing	Pupil Personnel

Table 21 (Continued)

Priority (Rank)	Item	Process	Area
22	31	Co-Ordinating	School Program
23.5	30	Co-Ordinating	School Management
23.5	36	Evaluation	Community Relations
25	13	Influencing	Staff Personnel
26	7	Planning	School Management
27	35	Planning	Community Relations
29	11	Co-Ordinating	Pupil Personnel
29	15	Organizing	School Management
29	32	Decision Making	Pupil Personnel
31	16	Evaluation	School Management
32	14	Organizing	Community Relations
33.5	12	Planning	Staff Personnel
33.5	33	Evaluation	Pupil Personnel
35	25	Planning	Pupil Personnel
36	21	Evaluation	Staff Personnel
37	22	Co-Ordinating	Community Relations

in the Miklos' (1968, 6) matrix.

This analysis tends to lend support to the observation that operational areas rather than the administrative processes are viewed as being important by the respondents. There is a definite clustering of operational areas which may be observed in an examination of items with priority rank from one to sixteen. Of these, school program occupies 7 ranks, staff personnel occupies 5 ranks, pupil personnel 3 ranks and school management 1 rank.

Similar observations, in regard to clustering, may be made from an examination of questionnaire items which occupy the lower priority ranks.

There appears to be an anomoly in this analysis in that processes related to the operational areas of pupil and staff personnel are clustered in both high and low priority ranks. An explanation of this phenomenon will be given in the concluding chapter of this thesis.

Discrepancy Analysis

The second analysis of priority is based on the ranking of a contrived measure termed a discrepancy. It was defined as the absolute difference between the means for the perceived actual and needed level of skill in the performance of administrative processes as measured by the Administrative Processes Questionnaire.

Table 22 presents a summary of the means, calculated discrepancy and the discrepancy rank for each questionnaire item. This information is reorganized and presented in rank order in Table 23. The administrative processes and the operational areas to which they refer

Table 22

Discrepancy Analysis of Actual and Needed Level of Skills in Administrative Processes

Item	Actual Mean	Needed Mean	Discrepancy	Rank
1	3.39	4.18	0.79	3
2	3.68	4.09	0.41	4.5
3	3.42	3.78	0.36	27
4	3.29	3.91	0.62	9
5	3.81	4.34	0.53	15.5
6	3.32	3.83	0.51	17
7	3.29	3.78	0.49	19
8	3.53	3.79	0.26	33
9	3.45	4.16	0.71	4
10	3.37	3.94	0.57	13
11	3.28	3.68	0.40	26
12	3.55	3.58	0.03	37
13	3.03	3.73	0.70	5
14	3.13	3.71	0.58	12
15	3.50	3.60	0.10	36
16	3.08	3.73	0.65	8
17	3.50	4.04	0.54	14
18	3.24	4.11	0.87	2
19	3.60	4.03	0.43	23
20	3.68	4.12	0.44	22
21	2.95	3.55	0.60	11
22	3.02	3.36	0.34	29

Table 22 (Continued)

Item	Actual Mean	Needed Mean	Discrepancy	Rank
23	3.56	3.89	0.33	30.5
24	3.72	4.00	0.28	32
25	3.34	3.94	0.50	18
26	3.62	4.10	0.48	20
27	3.70	4.11	0.41	24.5
28	2.95	4.00	1.05	1
29	3.33	3.86	0.53	15.5
30	3.41	3.74	0.33	30.5
31	3.47	3.68	0.21	35
32	3.27	3.62	0.35	28
33	3.17	3.63	0.46	21
34	3.25	3.92	0.67	6
35	3.06	3.72	0.66	7
36	3.14	3.75	0.61	10
37	3.76	3.98	0.22	34

Table 23

Priorities for Skills Development in Administrative Processes in Five Areas of Educational Administration From Discrepancy Analysis

Priority (Rank)	Item	Process	Area
1	28	Evaluation	Staff Personnel
2	18	Evaluation	School Program
3	1	Planning	School Program
4	9	Decision Making	School Program
5	13	Influencing	Staff Personnel
6	34	Co-Ordinating	Staff Personnel
7	35	Planning	Community Relations
8	16	Evaluation	School Management
9	4	Evaluation	Pupil Personnel
10	36	Evaluation	Community Relations
11	21	Evaluation	Staff Personnel
12	14	Organizing	Community Relations
13	10	Influencing	School Program
14	17	Decision Making	School Program
15.5	5	Communicating	Staff Personnel
15.5	29	Communicating	Community Relations
17	6	Decision Making	Community Relations
18	25	Planning	Pupil Personnel
19	7	Planning	School Management
20	26	Influencing	Pupil Personnel
21	33	Evaluation	Pupil Personnel

Table 23 (Continued)

Priority (Rank)	Item	Process	Area
22	20	Decision Making	Staff Personnel
23	19	Communicating	Pupil Personnel
24.5	2	Communicating	School Program
24.5	27	Organizing	Staff Personnel
26	11	Co-Ordinating	Pupil Personnel
27	3	Organizing	Pupil Personnel
28	32	Decision Making	Pupil Personnel
29	22	Co-Ordinating	Community Relations
30.5	23	Decision Making	School Management
30.5	30	Co-Ordinating	School Management
32	24	Decision Making	Pupil Personnel
33	8	Influencing	School Management
34	37	Communicating	School Management
35	31	Co-Ordinating	School Program
36	15	Organizing	School Management
37	12	Planning	Staff Personnel

are also shown in this table.

Again in this analysis there is a tendency towards clustering of items by operational area. Of the first sixteen ranks the operational areas of staff personnel and school program each occupy 5 ranks while community relations occupies 4 ranks. It is also noted that in this analysis there is a clustering in the first eleven ranks of the process of evaluation which occupies 6 ranks. This indicates that when differences between perceptions of actual and needed skill in performing processes is considered, the processes rather than operational areas could have a stronger influence on perception.

Relationship Between Priority and Discrepancy Analyses

A Spearman Rank Order Correlation Analysis, using the formula given in Ferguson (1971, 30), was calculated using the rank order data in Tables 20 and 22. The calculated value was $\rho = 0.25$ which is not significant at the five percent level.

This indicates that there is no significant statistical relationship between the two rankings. The result is not altogether unexpected as the two scales measured different perceptions. The priority scale considered respondents' perception of the need for the development of the skill as a practising administrator, while the discrepancy analysis examined differences between means for perceived actual and needed level of skill in performing the processes.

Further discussion of this difference will be undertaken in the concluding chapter.

Analysis of Skills Development Needs

When the results of the priority and discrepancy analyses are combined by calculation of the mean priority for each item, a contrived measure of the needs for skill development is obtained. This analysis shows that skills in processes related to the operational areas of school program, staff personnel and pupil personnel are those most in need of development. The following summarizes the particular processes related to these areas.

School Program: Evaluation, Communicating, Co-ordinating, Decision Making, Influencing.

Staff Personnel: Evaluation, Communicating, Decision Making, Influencing.

Pupil Personnel: Evaluation, Influencing.

Chapter Summary

This chapter has presented tables of reported priority for administrative skill development in processes related to operational areas of Educational Administration. An analysis of the discrepancy between perceived actual and needed level of skill in performing these processes was also presented.

The priority analysis indicated that respondents tended to view priorities for skill development in terms of operational area. In general, processes related to the areas of staff personnel, school management and pupil personnel occupied the higher priority rankings.

The analysis of discrepancies between the means for perceived actual and needed level of skill in performing administrative

processes indicated that evaluation was the process which occupied the higher ranks and was related to all operational areas. It may be concluded that evaluation is the process which is most in need of development as a skill.

When the priority and discrepancy scales were combined it was concluded that the greatest needs for skill development are found in processes related to the operational areas of school program, staff personnel and pupil personnel.

It was found that there was no significant statistical relationship as measured by correlational techniques between the rankings of priority determined by the two methods outlined in the chapter.

Chapter Five presents an analysis of perceived actual and needed level of skill in performing administrative processes as they relate to variables descriptive of respondents.

Chapter 5

RELATIONSHIPS BETWEEN PERCEIVED ACTUAL AND NEEDED LEVEL OF SKILL OF RESPONDENTS WHEN GROUPED BY PERSONAL CHARACTERISTICS

This chapter examines relationships between perceived actual and needed level of skill in the performance of processes related to the operational areas of Educational Administration. The respondents were grouped according to the descriptive variables age, years of teacher education as accredited for salary purposes, teaching experience, administrative experience, availability of administrative assistance, time allocation for administration and the rural urban location of the school.

Preliminary Analysis

In a preliminary analysis of data the Pearson Product Moment Correlation Coefficient was calculated to determine relationships between the personal variable age and the educational variables teaching experience and administrative experience. The coefficient of correlation between age and teaching experience was 0.68, while that between age and administrative experience was 0.84. Both of these are statistically significant at the one percent level of significance, which indicates a high degree of relationship between the variables.

As a result of the above finding it was assumed that inferences drawn from treatment of the data in relation to age may also be applied to the variables which describe teaching and administrative experience. Analysis of the data in relation to these two variables is not reported in this study.

Relationship Between Administrative Skill and Age

The grouping, for analysis of the relationship between age and perceived level of skill in the performance of administrative processes, was an arbitrary split of respondents into two groups. These were formed on the basis of respondents indicating whether they were under or over forty years of age. In the sample used for analysis, 280 respondents indicated that they were under forty years of age and are designated Group A in the following discussion. Group B consisted of 254 respondents who indicated that they were over forty years of age.

Examination of Table 24 indicates that statistically significant differences between means for perceived actual level of skill for Group A and Group B were obtained for items 14, 23, 35 and 36. These items refer to planning, organizing and evaluation of community relations and decision making in the area of school management. Of these, only for item 14 was the mean for Group B numerically greater than that for Group A.

The above results indicate that when age is the independent variable the main differences in perceived actual level of skill in the performance of administrative processes occur in the area of community relations.

Table 24 also shows differences between means for perceived

Table 24

Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped by Age

	ACTUAL LEVEL OF SKILL				NEEDED LEVEL OF SKILL			
Item	Under 40 Years	Over 40 Years	t	p	Under 40 Years	Over 40 Years	t	p[b]
1	3.45	3.33	1.78	0.08[a]	4.16	4.20	-0.69	0.50
2	3.69	3.68	0.13	0.86	4.08	4.10	-0.34	0.73
3	3.45	3.38	0.98	0.33	3.75	3.80	-0.62	0.54
4	3.24	3.34	-1.424	0.151	3.87	3.95	-1.24	0.21
5	3.87	3.74	1.88	0.06	4.34	4.33	0.08	0.89
6	3.33	3.31	0.24	0.80	3.84	3.82	0.33	0.74
7	3.35	3.21	1.90	0.06	3.77	3.70	-0.19	0.83
8	3.53	3.53	0.07	0.90	3.74	3.86	-1.92	0.05
9	3.46	3.42	0.67	0.51	4.15	4.17	-0.25	0.79
10	3.43	3.31	1.88	0.06	3.95	3.93	0.26	0.78
11	3.34	3.20	1.77	0.07	3.73	3.63	1.29	0.19
12	3.60	3.49	1.31	0.19	3.61	3.55	0.84	0.41
13	3.02	3.04	-0.29	0.76	3.75	3.69	0.85	0.40
14	3.03	3.26	-2.94	0.00*	3.66	3.78	-1.74	0.08
15	3.54	3.46	1.20	0.23	3.58	3.65	-0.89	0.38
16	3.13	3.04	1.31	0.19	3.76	3.71	0.71	0.49
17	3.57	3.44	1.80	0.07	4.03	4.07	-0.52	0.61
18	3.24	3.24	-0.01	1.00	4.15	4.07	1.21	0.22
19	3.63	3.58	0.63	0.54	4.02	4.06	-0.68	0.50
20	3.72	3.66	0.76	0.45	4.13	4.13	0.03	0.92

Table 24 (Continued)

Item	ACTUAL LEVEL OF SKILL				NEEDED LEVEL OF SKILL			
	Under 40 Years	Over 40 Years	t	p	Under 40 Years	Over 40 Years	t	p[b]
21	3.00	2.90	1.23	0.22	3.55	3.57	-0.15	0.85
22	2.96	3.09	-1.68	0.09	3.35	3.37	-0.23	0.81
23	3.64	3.46	2.62	0.01*	3.98	3.80	2.97	0.00*
24	3.75	3.69	0.78	0.44	3.95	3.92	0.46	0.65
25	3.34	3.34	-0.04	0.92	3.64	3.56	1.13	0.26
26	3.56	3.68	-1.80	0.07	4.05	4.15	-1.41	0.15
27	3.72	3.67	0.83	0.41	4.12	4.10	0.37	0.71[a]
28	2.95	2.94	0.12	0.87	3.96	4.05	-1.29	0.19
29	3.32	3.32	0.03	0.92	3.83	3.88	-0.70	0.49
30	3.43	3.38	0.73	0.47[a]	3.73	3.74	-0.19	0.85[a]
31	3.50	3.43	1.06	0.29	3.70	3.66	0.63	0.54
32	3.27	3.26	0.11	0.88	3.61	3.64	-0.42	0.68
33	3.20	3.14	0.93	0.36	3.63	3.64	-0.13	0.86
34	3.31	3.18	1.80	0.07	3.90	3.94	-0.66	0.52
35	2.98	3.15	-2.26	0.02**	3.61	3.85	-3.30	0.00*
36	3.07	3.22	-2.10	0.03**	3.69	3.81	-1.69	0.09
37	3.73	3.78	-0.82	0.41	3.98	3.98	-0.09	0.89

[a]Welch t' adjustment for uneoual variances

[b]probability

*Significant at 0.01 level

**Significant at 0.05 level

needed level of skill in performing administrative processes when respondents are grouped according to age. Statistically significant differences between means were observed for items 23 and 35. These refer to decision making in school management and planning of community relations. The mean for item 35 was numerically greater for Group B than for Group A.

It may be concluded that when age is the independent variable there is general agreement between groups as to the level of skill required to perform administrative processes successfully.

A general conclusion from both the above analyses is that differences in perceived actual and needed level of skill in the performance of administrative processes occur only in the area of community relations and school management when age is the independent variable. It should also be noted that where statistically significant differences between means occur, the group with the greater numerical mean for perceived actual level of skill also has the greater numerical mean for perceived needed level of skill.

Relationships Between Administrative Skill and Accredited Teacher Education

Two groups were utilized in the analysis of relationships between years of accredited teacher education and perceived actual and needed level of skill in the performance of administrative processes. In the following discussion Group A refers to the 331 respondents accredited with either five or six years of teacher education. Group B refers to the 203 respondents who reported having less than five years of teacher education.

The rationale for grouping was that it was assumed Group A respondents had a graduate degree, two undergraduate degrees or were working on a graduate program at the time of the survey. Group B respondents were assumed to have either an undergraduate degree or a number of years of teacher education from an institution which did not grant degrees.

Examination of Table 25 indicates that statistically significant differences between means for perceived actual level of skill for Group A and Group B were obtained for twenty-two items. The processes and areas referred to by these items are summarized in Table 26.

This analysis indicates that the means for perceived actual level for Group A are statistically significantly higher than the means for Group B, in the processes of planning, decision making, influencing and evaluation in most areas examined. It should also be noted that there was no statistically significant difference between means for perceived actual level of skill in the performance of processes associated with the area of community relations.

Table 25 also shows that statistical significance was reached for differences between means for Group A and Group B when perceptions of needed level of skill are considered. This difference occurred in items 20, 21 and 23, which refer to decision making and evaluation in the area of staff personnel and decision making in the area of school management.

A general conclusion to be drawn from the above analysis is that persons with five or more years of teacher education perceive that they have a higher level of skill in the performance of administrative processes than those with less than five years in all

Table 25

Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped by Number of Years of Accredited Teacher Education

	ACTUAL LEVEL OF SKILL				NEEDED LEVEL OF SKILL			
Item	5 or 6 Years	Less Than 5 Years	t	p	5 or 6 Years	Less Than 5 Years	t	p[b]
1	3.47	3.26	3.19	0.00*	4.21	4.13	1.26	0.21
2	3.74	3.59	2.23	0.03**	4.12	4.04	1.25	0.21
3	3.50	3.28	3.22	0.00*	3.76	3.81	-0.70	0.49
4	3.32	3.24	1.10	0.27	3.88	3.95	-1.07	0.29
5	3.83	3.77	0.91	0.37	4.36	4.30	1.01	0.32
6	3.35	3.28	0.95	0.34	3.87	3.76	1.64	0.10
7	3.38	3.13	3.26	0.00*	3.78	3.78	0.06	0.91
8	3.61	3.39	3.12	0.00*	3.77	3.83	-0.82	0.42
9	3.51	3.33	2.68	0.01*	4.17	4.14	0.50	0.62
10	3.45	3.24	3.29	0.00*	3.97	3.90	0.99	0.32
11	3.32	3.19	1.63	0.10	3.66	3.71	-0.62	0.55
12	3.63	3.41	2.63	0.01*	3.63	3.51	1.47	0.14
13	3.14	2.85	3.80	0.00*	3.78	3.64	1.86	0.06
14	3.17	3.09	0.89	0.38	3.70	3.74	-0.55	0.59
15	3.50	3.50	0.09	0.89	3.56	3.69	-1.69	0.09
16	3.16	2.97	2.63	0.01*	3.71	3.77	-0.93	0.35[a]
17	3.59	3.38	2.86	0.01*	4.05	4.04	0.16	0.85
18	3.30	3.14	2.32	0.02*	4.11	4.12	-0.17	0.84
19	3.66	3.52	1.88	0.06[a]	4.05	4.02	0.46	0.65
20	3.82	3.47	4.45	0.00*	4.20	4.01	2.75	0.01*

Table 25 (Continued)

Item	ACTUAL LEVEL OF SKILL				NEEDED LEVEL OF SKILL			
	5 or 6 Years	Less Than 5 Years	t	p	5 or 6 Years	Less Than 5 Years	t	p[b]
21	3.10	2.72	4.45	0.00*	3.66	3.39	3.02	0.00*
22	3.00	3.06	-0.74	0.47	3.33	3.41	-1.08	0.28[a]
23	3.64	3.42	3.11	0.00*	3.94	3.81	2.00	0.04**
24	3.78	3.64	1.94	0.06[a]	3.95	3.92	0.38	0.71
25	3.37	3.28	1.17	0.24	3.57	3.64	-0.87	0.39
26	3.68	3.52	2.48	0.01*	4.12	4.05	1.07	0.29
27	3.80	3.53	3.94	0.00*	4.15	4.04	1.67	0.09
28	3.01	2.85	2.30	0.02[a]*	4.03	3.97	0.94	0.35
29	3.37	3.25	1.70	0.09	3.87	3.82	0.75	0.46
30	3.42	3.38	0.64	0.52[a]	3.76	3.71	0.70	0.49
31	3.54	3.34	3.21	0.00*	3.69	3.67	0.32	0.75
32	3.38	3.09	4.05	0.00*	3.63	3.61	0.34	0.73
33	3.25	3.04	2.98	0.00*	3.65	3.60	0.73	0.47
34	3.37	3.05	4.31	0.00*	3.96	3.86	1.48	0.14
35	3.08	3.03	0.55	0.59	3.69	3.79	-1.40	0.16
36	3.19	3.07	1.51	0.13	3.74	3.76	-0.36	0.72
37	3.76	3.74	0.31	0.76[a]	4.01	3.94	0.98	0.33

[a]Welch t' adjustment for unequal variances

[b]probability

*Significant at 0.01 level

**Significant at 0.05 level

Table 26

Significant Differences Between Means for Perceived Actual Level of Skill in Administrative Processes When Respondents are Grouped by Teacher Education

Processes \ Areas	School Program	Pupil Personnel	Staff Personnel	Community Relations	School Management
Planning	X		X		X
Decision Making	X[a]	X	X		X
Organizing		X	X		
Co-Ordinating	X		X		
Communicating	X				
Influencing	X	X	X		X
Evaluation	X	X[b]	X[a]		X

[a] Two items relating to this process showed statistically significant differences.

areas but community relations considered in the study. Both groups tend to agree upon the level of skill required to perform the processes successfully.

It is also noted that in general where statistically significant differences between means occur the group with the numerically greater mean for perceived actual level of skill also has a numerically greater mean for perceived needed level of skill.

Relationship Between Administrative Skill and Availability of Administrative Assistance

The questionnaire item relating to the availability of administrative assistance collected data as to the number of administrative assistants, defined as vice principals or department heads, working in the school. For the purposes of this analysis a two way split, based on whether or not administrative assistance was available, was the method utilized in the grouping of respondents.

In the following discussion Group A refers to the 387 respondents who indicated that they have some administrative assistance while Group B refers to the 147 respondents who reported they have no administrative assistance.

Table 27 shows that the difference between means for perceived actual level of skill for Group A and Group B reached statistical significance for fourteen items. The processes and areas to which they refer are summarized in Table 28.

The above analysis indicates that the means for perceived actual level of skill in the processes identified and associated with school program, staff personnel, pupil personnel and school management are

Table 27

Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped by Availability of Administrative Assistance

	ACTUAL LEVEL OF SKILL				NEEDED LEVEL OF SKILL			
Item	Some Assist-ance	No Assist-ance	t	p[b]	Some Assist-ance	No Assist-ance	t	p[b]
1	3.44	3.25	2.68	0.01*	4.19	4.16	0.49	0.63
2	3.73	3.66	2.27	0.02**	4.11	4.03	1.20	0.23
3	3.47	3.27	2.59	0.01*	3.77	3.79	-0.23	0.80
4	3.36	3.11	3.32	0.00*	3.90	3.92	-0.27	0.81
5	3.84	3.71	1.68	0.09	4.36	4.27	1.55	0.12
6	3.36	3.24	1.49	0.13	3.86	3.75	1.59	0.11
7	3.37	3.06	3.78	0.00*	3.80	3.73	1.02	0.31
8	3.56	3.46	1.21	0.23	3.79	3.81	-0.32	0.75[a]
9	3.48	3.34	2.00	0.04**	4.17	4.14	0.43	0.67
10	3.40	3.29	1.50	0.13	3.95	3.91	0.59	0.57
11	3.31	3.17	1.64	0.10	3.68	3.68	0.02	0.93
12	3.65	3.29	4.11	0.00*	3.58	3.60	-0.25	0.79
13	3.04	2.99	0.59	0.57	3.71	3.76	-0.64	0.53
14	3.11	3.22	-1.34	0.18	3.71	3.74	-0.39	0.67
15	3.49	3.53	-0.49	0.63	3.57	3.72	-1.88	0.06
16	3.11	3.01	1.23	0.22	3.74	3.72	0.23	0.80
17	3.58	3.31	3.43	0.00*	4.09	3.93	1.82	0.07[a]
18	3.24	3.24	0.03	0.93	4.16	4.01	2.08	0.04**
19	3.65	3.50	1.87	0.06	4.05	4.00	0.73	0.47

Table 27 (Continued)

Item	ACTUAL LEVEL OF SKILL: Some Assistance	No Assistance	t	p[b]	NEEDED LEVEL OF SKILL: Some Assistance	No Assistance	t	p[b]
20	3.81	3.38	4.90	0.00*	4.20	3.95	3.46	0.00*
21	3.02	2.80	2.38	0.02**	3.61	3.44	1.72	0.08
22	2.99	3.10	-1.16	0.25	3.35	3.39	-0.50	0.66
23	3.66	3.28	5.16	0.00*	3.96	3.71	3.66	0.00*
24	3.76	3.62	1.76	0.08	3.96	3.88	0.94	0.35
25	3.37	3.26	1.29	0.19	3.58	3.64	-0.67	0.51
26	3.64	3.56	1.05	0.30	4.10	4.09	0.13	0.87
27	3.76	3.51	3.12	0.00[a]*	4.14	4.03	1.43	0.15[a]
28	2.96	2.91	0.65	0.53	4.02	3.97	0.73	0.47
29	3.30	3.39	-1.30	0.19	3.85	3.87	-0.32	0.75
30	3.42	3.36	0.95	0.34[a]	3.72	3.80	-1.12	0.26
31	3.52	3.33	2.90	0.00*	3.72	3.58	1.95	0.05**
32	3.29	3.22	0.88	0.38	3.63	3.60	0.39	0.70
33	3.19	3.12	1.01	0.31	3.64	3.62	0.25	0.79
34	3.28	3.16	1.40	0.16	3.95	3.84	1.41	0.16
35	3.04	3.10	-0.72	0.48	3.71	3.76	-0.59	0.57
36	3.11	3.23	-1.48	0.14	3.73	3.79	-0.72	0.48
37	3.80	3.65	2.06	0.04**	3.99	3.95	0.55	0.59

[a]Welch t' adjustment for unequal variance

[b]probability

*Significant at 0.01 level

**Significant at 0.05 level

Table 28

Significant Differences Between Means for Perceived Actual Level of Skill in Administrative Processes When Respondents are Grouped by Availability of Administrative Assistance

Processes \ Areas	School Program	Pupil Personnel	Staff Personnel	Community School Relations	School Management
Planning	X		X		X
Decision Making	X[a]		X		X
Organizing		X	X		
Co-Ordinating	X				
Communicating	X				X
Influencing					
Evaluation		X	X		

[a]Two items relating to this process showed statistically significant differences between means.

significantly higher for Group A than Group B. It also shows that there is no significant difference between means for processes involved in the area of community relations.

Further examination of Table 27 indicates that significant differences between means for perceived needed level of skill for Group A and Group B occur in only four items. These refer to co-ordinating and evaluation of school program and decision making in the areas of staff personnel and school management.

This analysis shows that when respondents are grouped using the availability of administrative assistance as the independent variable there are significant differences between means for perceived needed level of skill in the performance of administrative processes except as noted above. It is also noted that in general where differences are statistically significant that the group with the numerically greater mean for perceived actual level of skill also has a numerically greater mean for perceived need level of skill.

Relationship Between Administrative Skills and Time Allocated for Administrative Duties

The questionnaire item which collected the data on time allocated to administrative duties required respondents to indicate whether they spent the majority of their time on teaching or administration. Some respondents indicated that equal time was allocated for teaching and administration. This was recorded as a third category in Table 9. For the purposes of the following analysis two groups were formed. Those who indicated that the majority of time was spent on

administrative duties numbered 345 respondents and are designated Group A in the following discussion. Those respondents who indicated that they spent fifty percent or more of their time teaching are designated Group B which had 189 members.

Examination of Table 29 indicated that differences between means for perceived actual level of skill for Group A and Group B reach statistical significance for twenty-four items. The processes and operational areas to which these items refer are recorded in Table 30. In all cases the mean perceived actual level of skill was significantly higher for Group A than Group B.

When the means for Group A and Group B for perceived needed level of skill are considered, Table 29 shows that statistical significance for differences between means is reached for eight items. These items refer to processes and operational areas as follows:

School Program: Organizing, Communicating, Evaluation.

Staff Personnel: Co-ordinating, Decision Making, Evaluation.

School Management: Planning, Decision Making.

In each case the mean perceived needed level of skill is significantly higher for Group A than Group B.

The conclusion which may be drawn from the above analyses is that principals who allocate the majority of their time to administrative duties perceive their level of skill in performing administrative processes as being higher than those who devote the majority of their time to teaching. Where the differences between means were statistically significant it may be noted that in general the group with the greater numerical mean for perceived actual level

Table 29

Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped By Time Allocated for Administration

	ACTUAL LEVEL OF SKILL				NEEDED LEVEL OF SKILL			
Item	Mainly Admin. Mean	Mainly Teaching Mean	t	p	Mainly Admin. Mean	Mainly Teaching Mean	t	p[b]
1	3.48	3.22	3.93	0.00*	4.18	4.19	-0.14	0.86
2	3.75	3.56	2.95	0.00*	4.14	4.01	2.03	0.04**
3	3.47	3.32	2.14	0.03**	3.79	3.74	0.70	0.49
4	3.36	3.16	2.78	0.01*	3.91	3.90	0.04	0.92
5	3.85	3.74	1.56	0.12	4.37	4.28	1.47	0.14
6	3.36	3.26	1.24	0.21	3.86	3.77	1.47	0.14
7	3.41	3.07	4.41	0.00*	3.85	3.66	2.90	0.00*
8	3.57	3.46	1.61	0.10	3.79	3.80	-0.11	0.88
9	3.52	3.30	3.32	0.00*	4.21	4.07	2.16	0.03**
10	3.43	3.26	2.45	0.01*	3.95	3.92	0.49	0.63
11	3.39	3.05	4.30	0.00*	3.71	3.62	1.20	0.23
12	3.63	3.40	2.71	0.01*	3.55	3.63	-0.97	0.33
13	3.06	2.96	1.32	0.19	3.75	3.67	1.09	0.27
14	3.19	3.04	1.90	0.06	3.73	3.69	0.55	0.59
15	3.47	3.56	-1.11	0.27	3.56	3.70	-1.89	0.06
16	3.13	3.00	1.76	0.08	3.75	3.71	0.54	0.59
17	3.59	3.35	3.23	0.00*	4.08	3.99	1.06	0.32[a]
18	3.30	3.14	2.31	0.02**	4.19	3.98	3.15	0.00[a]*
19	3.69	3.46	3.01	0.00*	4.03	4.05	-0.19	0.83

Table 29 (Continued)

Item	ACTUAL LEVEL OF SKILL: Mainly Admin. Mean	Mainly Teaching Mean	t	p	NEEDED LEVEL OF SKILL: Mainly Admin. Mean	Mainly Teaching Mean	t	p[b]
20	3.85	3.40	5.51	0.00*	4.21	3.99	3.05	0.00[a]*
21	3.08	2.72	4.28	0.00*	3.69	3.33	3.89	0.00*
22	3.03	3.00	0.43	0.67	3.33	3.41	-1.05	0.29
23	3.69	3.32	5.35	0.00*	3.97	3.75	3.35	0.00*
24	3.81	3.57	3.10	0.00*	3.99	3.84	2.04	0.04**
25	3.37	3.29	1.01	0.31	3.59	3.61	-0.18	0.83
26	3.67	3.53	1.95	0.05**	4.14	4.02	1.63	0.10
27	3.81	3.48	4.89	0.00*	4.13	4.08	0.74	0.47
28	2.97	2.91	0.81	0.42	4.01	4.01	0.01	1.00
29	3.32	3.33	-0.09	0.89	3.83	3.90	-1.03	0.31
30	3.48	3.27	3.20	0.00*	3.73	3.76	-0.44	0.67
31	3.52	3.38	2.25	0.02**	3.71	3.64	0.96	0.34
32	3.37	3.09	3.80	0.00*	3.67	3.54	1.67	0.09
33	3.24	3.05	2.74	0.01*	3.67	3.56	1.56	0.12
34	3.34	3.08	3.43	0.00*	3.98	3.81	2.44	0.01*
35	3.08	3.02	0.90	0.37	3.71	3.75	-0.49	0.63
36	3.12	3.19	-0.83	0.41	3.73	3.78	-0.74	0.47
37	3.82	3.65	2.66	0.01*	4.02	3.91	1.64	0.10

[a]Welch t adjustment for unequal variances

[b]probability

*Significant at 0.01 level

**Significant at 0.05 level

Table 30

Significant Differences Between Means for Perceived Actual Level of Skill in Administrative Processes When Respondents are Grouped by Time Allocated to Administration

Processes \ Areas	School Program	Pupil Personnel	Staff Personnel	Community School-Relations	Management
Planning	X		X		X
Decision Making	X[a]	X	X		X
Organizing	X	X	X		
Co-Ordinating	X	X	X		X
Communicating	X	X			X
Influencing	X	X			
Evaluation	X	X[a]	X		

[a]Two items relating to this process showed statistically significant differences between means.

of skill also has the greater numerical mean for perceived needed level of skill.

Relationships Between Administrative Skill and the Rural Urban Location of the School

The grouping used in the following analysis comes directly from the questionnaire item which required respondents to categorize their school location as either urban or rural as recorded in Table 10. Of the sample used, 309 respondents classified their schools as urban while 225 classified their schools as rural.

Table 31 shows that differences between means for perceived actual level of skill for rural and urban respondents are statistically significant on twenty-two items. The processes and operational areas to which they refer are summarized in Table 32. In all but one item the mean for urban respondents was statistically significantly higher than that for rural respondents.

Further examination of Table 31 shows that statistical significance for differences between means for perceived needed level of skill is reached on four items. These refer to the following areas and processes:

School Program: Communicating

Staff Personnel: Communicating and Evaluation

School Management: Decision Making

In each case the mean was numerically greater for urban respondents.

The above analyses have shown that urban principals perceive that in general they have a higher actual level of skill that their rural counterparts and that there are few differences in perceived

Table 31

Analysis of Differences Between Mean Responses to Questionnaire Items When Respondents are Grouped By the Rural Urban Location of the School

	ACTUAL LEVEL OF SKILL				NEEDED LEVEL OF SKILL			
Item	Urban Mean	Rural Mean	t	p	Urban Mean	Rural Mean	t	p[b]
1	3.49	3.27	3.37	0.00*	4.19	4.16	0.52	0.61
2	3.74	3.60	2.26	0.02**	4.15	4.01	2.20	0.03**
3	3.53	3.26	3.86	0.00*	3.78	3.77	0.15	0.85
4	3.37	3.18	2.87	0.00*	3.91	3.91	-0.08	0.90
5	3.85	3.74	1.59	0.12	4.40	4.25	2.71	0.01*
6	3.35	3.29	0.84	0.41	3.85	3.79	0.99	0.32
7	3.38	3.16	2.91	0.00*	3.82	3.73	1.32	0.19
8	3.56	3.49	0.96	0.34	3.77	3.82	-0.75	0.46
9	3.50	3.36	2.17	0.03**	4.20	4.09	1.80	0.07
10	3.43	3.29	2.10	0.03**	3.98	3.90	1.23	0.22
11	3.37	3.15	2.90	0.00*	3.70	3.66	0.52	0.61
12	3.57	3.52	0.67	0.51	3.58	3.58	-0.04	0.92
13	3.11	2.92	2.62	0.01*	3.72	3.74	-0.31	0.75
14	3.16	3.09	0.85	0.40	3.75	3.66	1.17	0.24
15	3.48	3.52	-0.45	0.66	3.56	3.68	-1.62	0.10
16	3.14	3.00	2.02	0.04**	3.68	3.79	-1.58	0.11
17	3.48	3.53	-0.75	0.46	3.98	4.12	-1.81	0.07
18	3.33	3.10	3.46	0.00*	4.16	4.04	1.76	0.08
19	3.62	3.56	0.81	0.43	4.05	4.01	0.62	0.54

Table 31 (Continued)

	ACTUAL LEVEL OF SKILL				NEEDED LEVEL OF SKILL			
Item	Urban Mean	Rural Mean	t	p	Urban Mean	Rural Mean	t	p[b]
20	3.77	3.56	2.54	0.01*	4.17	4.06	1.53	0.12
21	3.11	2.72	4.57	0.00*[a]	3.67	3.39	3.11	0.00*
22	2.97	3.10	-1.63	0.10	3.31	3.44	-1.71	0.08
23	3.63	3.46	2.52	0.01*	3.95	3.81	2.11	0.03**
24	3.72	3.72	0.07	0.90	3.89	4.00	-1.65	0.10
25	3.26	3.45	-2.55	0.01*	3.54	3.68	-1.80	0.07
26	3.69	3.54	2.25	0.02**	4.10	4.09	0.21	0.81
27	3.77	2.86	2.68	0.01*	4.16	4.04	1.78	0.08[a]
28	3.02	2.86	2.16	0.03**	4.01	4.00	0.21	0.82
29	3.35	3.29	0.94	0.35	3.86	3.85	0.18	0.84
30	3.46	3.34	1.94	0.05*	3.73	3.74	-0.12	0.87
31	3.46	3.48	-0.21	0.82	3.67	3.70	-0.46	0.65
32	3.36	3.15	2.91	0.00*	3.63	3.60	0.36	0.72
33	3.28	3.02	3.84	0.00*	3.66	3.60	0.88	0.38
34	3.39	3.05	4.82	0.00*	3.96	3.86	1.43	0.15
35	3.07	3.04	0.53	0.60	3.75	3.69	0.78	0.44
36	3.15	3.14	0.05	0.92	3.72	3.78	-0.83	0.41
37	3.78	3.72	0.88	0.38	3.99	3.96	0.58	0.57

[a]Welch t' adjustment for unequal variancies

[b]probability

*Significant at 0.01 level

**Significant at 0.05 level

Table 32

Significant Differences Between Means for Perceived Actual Level of Skill for Respondents When Grouped by the Urban Rural Location of Their School

Processes \ Areas	School Program	Pupil Personnel	Staff Personnel	Community School Relations	Management
Planning	X	X			X
Decision Making	X	X[a]			X
Organizing		X	X	X	
Co-Ordinating			X		X
Communicating	X				
Influencing	X	X	X		
Evaluation	X	X	X		

[a]Two items relating to this process showed statistically significant differences between means.

needed level of skill. It should also be noted that where differences between means are statistically significant, the group with the greater numerical mean for perceived actual level of skill also has the greater numerical mean for perceived needed level of skill.

Chapter Summary

This chapter has examined the differences between means for perceived actual and needed level of skill in the performance of administrative processes when respondents were grouped according to age, teacher education, allocation time to administration or teaching, the availability of administrative assistance and the rural or urban location of the school. Table 33 summarizes where significant differences were found between means for perceived actual and needed level of skill when respondents were grouped according to the above descriptive variables.

All the descriptive variables except age, and by implication teaching and administrative experience, were closely related to perceptions of actual level of skill in the performance of administrative processes. It was also found that there were no significant differences between means for processes related to the area of community relations, when these four variables were examined. When age was the independent variable the means for actual level of skill in processes related to the operational area of community relations were significantly higher for the group of respondents over forty years of age when compared to those under forty years of age for three of the seven processes.

Although there were significant differences noted between means

Table 33

Summary of Significant Differences Between Means for Perceived Actual and Needed Level of Skill in Administrative Processes When Respondents are Grouped by Descriptive Variables

VARIABLE \ PROCESSES	SCHOOL PROGRAM							PUPIL PERSONNEL							STAFF PERSONNEL							COMMUNITY RELATIONS							SCHOOL MANAGEMENT						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
AGE																						o x		x				x		x					
TEACHER EDUCATION	x	x		x	x	x	x		x	x			x	x	x	o x	x	x		x	o x							x	o x				x	x
ADMINISTRATIVE ASSISTANCE	x	x		o x	x		o			x				x	x	o x	x				x							x	o x			x		
ADMINISTRATIVE TIME	x	x	o x	x	o x	x	o x		o x	x	o x	x	o x	x	x	x	x	x			x								o x	o x		x	x		
RURAL OR URBAN LOCATION	x	x		o	x	x	x		x	x	x		x	x			x	x		o x	o x								o x		x			

Processes: 1. Planning 2. Decision Making 3. Organizing 4. Co-Ordinating 5. Communicating 6. Influencing 7. Evaluation

Key: x: Processes where significant differences were observed in actual level of skill.

o: Processes where significant differences were observed in needed level of skill.

for perceived needed level of skill in relation to several of the variables, it may be that there was general agreement within groups as to the level of skill required to perform administrative processes successfully. The exception that may be noted is in relation to the variable measuring time allocated to administration. The means for needed level of skill in processes related to areas of school program and pupil personnel were significantly higher for the group of respondents who reported spending less than fifty percent of their time on administrative duties.

Throughout the analyses it was noted that when differences between means were statistically significant, the group with the greater numerical mean for perceived actual level of skill had the greater numerical mean for perceived needed level of skill.

Chapter 6

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

Summary

The Problem

The major purpose of this study was to assess the administrative skills development needs of Alberta school principals. A number of sub problems were also examined. These included an analysis of reported priorities for development of the skill identified, as well as the relationship between perceived actual and needed level of skill in performing processes and selected personal, educational and situational variables descriptive of respondents.

The Procedure

An instrument titled the Administrative Processes Questionnaire was developed by the researcher. It consisted of statements which related the components of the administrative process to five operational areas of Educational Administration. Respondents were asked to record their perceptions of their actual and needed level of skill of performing the process identified, as well as the priority they placed on the development of the skill. All responses were recorded on a five point Likert type scale.

The data were analyzed using both descriptive and inferential

statistics. Where inferential statistics were employed parametric tests were utilized to determine probability levels of statistical significance. Statistical significance was reported when the obtained probability was not greater than 0.05. That is significant differences were reported where there was a 95 percent or more probability that differences found in the sample could be attributed to differences in the population rather than chance error in the sampling procedure adopted.

The Findings

The initial analysis of data was a compilation of frequency and percentage distribution of variables descriptive of the sample together with a frequency analysis of responses to each questionnaire item.

1. Factor Analysis An exploratory examination by factor analysis of the measures of perceived actual level of skill of performing administrative processes in the operational areas of Educational Administration, showed a tendency for factors to be related to operational areas. A similar analysis of perceived needed level of skill showed the same tendency and was not reported in the study.

This gave direction for reporting the results of further analysis of data. Where possible analysis was reported in terms of operational area rather than the components of the administrative process.

2. Differences Between Means for Total Sample To examine differences between means for perceived actual and needed level

of skill in performing the administrative processes identified, a 't test' with corrections for correlated data was utilized. It was found that there were statistically significant differences between means for all items except that which referred to planning in the operational area of staff personnel. In all cases however the mean for perceived actual level of skill was lower than the mean for perceived needed level of skill in all components of the administrative process related to operational areas.

3. Priority Analysis The analysis of priorities used in this study was a rank ordering of the means of responses to the priority scale for each item of the Administrative Processes Questionnaire. Respondents indicated the priority they placed upon the development of the skill described in the questionnaire.

The findings show that priorities tended to be related to operational areas rather than administrative processes. The item with the highest mean priority related to communicating with staff personnel. In general processes related to staff personnel, school program and pupil personnel occupied the higher priority rankings.

In reporting the analysis it was stated that there appears to be some anomoly as processes related to the areas of staff and pupil personnel occupy high and low priority rankings. This will be discussed further in the next section of this chapter.

4. Discrepancy Analysis An analysis of the absolute difference between the perceived actual and needed level of skill in performing administrative processes was reported. The discrepancy was defined as the absolute difference between means when the total sample was considered. Discrepancies were rank ordered for consideration.

Again in this analysis there was a tendency for clustering by operational area to be observed. The areas where greatest discrepancies occurred were staff personnel, school program and community relations. It was also noted that evaluation occupied six of the first eleven ranks and may be interpreted as meaning that it is the process most in need of development.

5. Analysis of Perceived Actual and Needed Level of Skill Related to Variables Descriptive of Respondents This analysis was designed to examine if there are any differences in perceived actual and needed level of skill in performing administrative processes when respondents were grouped according to various descriptive variables. In each case the descriptive variable was considered to be the independent variable while perceptions were considered to be the dependent variables.

a) Age In a preliminary analysis it was found that teaching and administrative experience showed a signficiant correlation with age. It was concluded that any inferences drawn from a consideration of the relationship between age and perceived level of skill may also be applied to discussions of the relationship between perceived level of skill and teaching or administrative experience.

Two groups were used in the analysis of the relationship between age and perceptions of level of skill in administrative processes. Respondents were allocated to groups on the basis of whether they reported their age as being under or over forty years.

When perceived actual level of skill was considered there were significant differences in the means for each group on four items. These related to planning, organizing and evaluation of

community relations and decision making in school management. Only in the process of organizing community relations was the mean for perceived actual level of skill higher for older principals than that for their younger counterparts.

Significant differences between means were observed for the skills involved in decision making in school management and planning community relations when the needed level of skill in performing processes was analyzed. The mean perceived needed level of skill in planning community relations was significantly higher for those principals over forty years of age.

b) Teacher Education Two groups were utilized in this analysis. Those principals accredited with four or less years of teacher education for salary purposes formed one group, while those accredited with five or more years formed the other. In the analysis of perceived actual level of skill it was observed that the means for principals with five or more years of education were higher in all cases where the difference between means was statistically significant. These differences were found in all areas except community relations where no significant differences between means were observed.

In the analysis of needed level of skill significant differences between means for the two groups was observed for items relating to decision making and evaluation of staff personnel, together with decision making in the area of school management. In each case the mean for those with five or more years of teacher education were higher than those for the group with less than five years. There were no significant differences between means for any of the other items.

c) Time Allocated for Administration For this analysis respondents were allocated to two groups on the basis of whether they reported spending more time on teaching or administration. In general the means for perceived actual level of skill were higher for those who reported spending the majority of their time on administrative duties. Significant differences between means were observed for processes in all areas except community relations.

Where significant differences were found between means for perceived needed level of skill, the means for those who spent the majority of their time on administration were always higher. These occurred in relation to communicating, decision making and evaluation of school program, decision making, co-ordinating and evaluation of staff personnel and planning and decision making in school management.

d) Availability of Administrative Assistance Respondents were allocated to two groups for this analysis on the basis of whether or not administrative assistance was available in the school. The means for perceived actual level of skill were generally higher for those who have administrative assistance. Significant differences between means were observed for fourteen items. These related to all areas except community relations. There was no significant difference between means for all other items.

The analysis of perceived needed level of skill showed that the means for those with no administrative assistance were higher in thirteen, but none of these were significantly different from the means of those with administrative assistance. Of the other items only four showed significant differences between means. These were related to evaluation and co-ordinating of school program and decision

making in the areas of staff personnel and school management.

e) Urban Rural Location of the School For the analysis of differences between means in relation to school location, two groups were formed on the basis of the respondents classification of his school as being rural or urban.

There was only one case where the mean, for perceived actual level of skill, was significantly higher for rural respondents than urban respondents and that related to planning in the area of pupil personnel. There were twenty other items where the differences between means were statistically significant and in each case the mean for urban respondents was higher. These related to all areas except community relations where no statistical difference between means was noted in the analysis.

Significant differences between means were recorded for communication in the areas of school program and staff presonnel, evaluation of staff personnel and decision making in school management, when perceived needed level of skill was considered. In each case the means for urban respondents were higher than those for rural respondents.

Conclusions and Implications

1. The factor analysis of data together with other analyses suggests that school principals tend to consider the skills involved in school administration in terms of operational areas rather than the components of the administrative process which may be involved. This may have resulted from the tenuous differences in the definitions of the components of the administrative process used in the study.

The model used for development of the instrument was based on standard definitions of processes which may be applied to any type of administration. That is, it is generally applicable to administration in all areas. It may be necessary for theories specific to Educational Administration to be developed so that practitioners may be able to recognize the processes involved and allow further study to take place.

2. When the data for the total sample were used in the analysis of differences between actual and needed level of skill in performing administrative processes significant differences were found to exist in all but one case, planning in the operational area of staff personnel. This may be accounted for by the statistical methods used and the sample size. However it does show that for the general population of Alberta school principals there is a need for development of administrative skills in most of the operational areas of school administration.

The differences in perceived level of skill indicated by the analysis of differences between means for groups identified by various personal, educational and situational variables shows that it is possible to identify the skills development needs of particular sub groups within the population. It would be possible therefore to develop inservice courses appropriate to the particular needs of the sub groups which have been identified.

3. In the analysis of differences between means for perceived actual and needed level of skill in administrative processes for various sub groups within the sample, it was noted that significant differences in processes related to community relations occurred

when age was the independent variable. The means for respondents over forty years of age were significantly higher in needed level of skill for processes than their younger counterparts. It is suggested that these results may reflect a difference in values between the two groups and may be a useful area of further study, particularly since modern educational theorists are putting so much emphasis on the role of the community in all school activities.

4. The anomolies referred to in the priority analysis were referring to the fact that processes related to staff and pupil personnel occupied both high and low ranks on the priority scale. These may be explained by the phrasing of the question which directed respondents to the priority scale. It asked "What is the priority you would place upon the development of this skill as an administrator?". It appears that respondents placed high priority for skill development upon processes in operational areas where they felt they had control. For example many of the items referring to the operational area of pupil personnel were concerned with pupil personnel services. Several respondents indicated that they had no control over or input into decisions for the provision of these services and so priority for development of skill in these processes was relatively low.

Also in this analysis the two items relating to evaluation of staff personnel appear in both high and low ranks on the priority scales. This may be explained by the fact that respondents may consider evaluation of and report writing on staff personnel to be unprofessional and therefore would have low priority. On the other hand encouraging or assisting staff personnel with self evaluation

is considered to be part of professional responsibility and therefore is noted having high priority.

In general the analysis of priorities showed a clustering of priority for skill development by operational area. This again may be related to comments made earlier in this section.

5. The analysis of discrepancies was a rank ordering of differences between means for perceived actual and needed level of skill in performing administrative processes. Here again the clustering of ranks tended to be by operational area. However the process of evaluation, in every area examined in the study, occupied high rank order position. The implication of this is that evaluation is the skill which is in the most need of development for Alberta school principals. It is considered that this is reasonable as evaluation forms an integral part of success in the performance of all skills related to the components of the administrative process.

6. Two further implications may be drawn from consideration of the priority and discrepancy analyses. The findings of the priority analysis should be considered by those charged with the responsibility for the preparation of school administrators. It gives a statement of the skills that practising principals consider as essential for success in the task of administering a school.

The discrepancy analysis is important for those concerned with the preparation of professional development courses for school administrators. In this analysis there is a statement of the areas where help is needed. Analysis such as this should assist in making courses relevant to the participants. This is particularly so in that it has been shown that analyses may be successfully applied to

sub groups within the population.

7. The analysis of differences between means for actual level of skill in administrative processes when related to teacher education, show that in general that persons with education beyond the initial undergraduate degree perceive that they have a higher level of skill in the performance of administrative processes. This may be interpreted as an indicator of an increase in confidence which seems to be related to further education. It also lends credence to the practice, by school authorities, of encouraging aspiring and practising administrators to partake of further education.

8. A general observation that may be made from the analysis of level of skill in administrative processes when related to variables descriptive of respondents, is that when differences between means were statistically significant, the group with the greater numerical mean for perceived actual level of skill also had the greater numerical mean for perceived needed level of skill. This may be interpreted to mean that persons who consider themselves to have a high level of skill in a particular process can see the need for further development of that skill.

9. When the results of the priority and discrepancy analyses were combined by the calculation of the mean priority for each item, a contrived measure of the needs for skills development was obtained. The analysis indicated that the following skills in processes related to operational areas were most in need of development for Alberta School principals.

School Program: Communicating, Co-ordinating, Decision Making Influencing and Evaluation.

Staff Personnel: Communicating, Decision Making, Influencing and Evaluation.

Pupil Personnel: Influencing and Evaluation.

Suggestions for Further Research

1. While the instrumentation used in this was considered suitable for an exploratory study, it is the opinion of the researcher that the instrument needs to be further developed. In an earlier section of this chapter the need for redefinition of the components of the administrative process was suggested so that they may apply more specifically to Educational Administration. Definitions of this type incorporated in the style of questionnaire used would make items more familiar to respondents and possibly lead to more meaningful results.

2. This study has shown that differences in perceived actual level of skill in administrative processes occur for various sub groups within the population. Further research may be directed to intensive study of these groups so the reasons for the differences may be fully explored.

3. A study of this nature directed towards aspiring school administrators, should be considered by those institutions offering courses in Educational Administration. While there is no suggestion that basic courses should be changed, it is envisioned that information gained could lead to changes which would make these courses more vital to participants.

4. Previous research into the identification of processes utilized by school administrators used outside observers, as well

as principals, to identify the processes involved. This technique may be used as a perception check of individuals' responses to questionnaire items. Likely participants in such a study would be teachers on the respondents' staff, pupils, the schools' community and school board officials.

5. The present study has examined the administrative skills development needs of Alberta School principals. Similar studies using other school and central office administrative staff should be considered in the future. Suggested subjects for these projects would be assistant principals, department heads, superintendents and members of area or central office supervisory staffs.

BIBLIOGRAPHY

Brottman, Marvin A.
1963 "The administrative process and elementary school principals." Administrators Notebook, 8:1-4.

Downey, Lawrence W.
1961 "The skills of an effective principal." The Canadian Administrator, 3:1-4.

Enns, F.
1966 "Perception in the study of administration." The Canadian Administrator, 6:1-4.

Ferguson, George A.
1971 Statistical Analysis in Psychology and Education. New York: McGraw Hill Inc.

Harris, Ben M., and Wailand Bessen.
1969 In-Service Education; A Guide to Better Practise, Englewood Cliffs: McGraw Hill Inc.

Hermanowicz, Henry J.
1966 "The pluralistic world of beginning teachers." in The World of Beginning Teachers, National Commission on Teacher Education and Professional Standards, The National Education Association. 16-25.

Katz, Robert L.
1955 "Skills of an effective administrator." Harvard Business Review, 1:33-42.

Melton, Joseph.
1971 "Role perception of the elementary principal." National Elementary Principal, 4:40-44.

Miklos, Erwin.
1968 "The administrative process." in D.A. Mackay (ed), The Principal as Administrator. Edmonton, The Policy Committee, Leadership Course for Principals.

Misner, Paul J. F.W. Schneider and L.G. Keith.
1963 Elementary School Administration. Columbus: Merrill Books Inc.

Mulaik, Stanley A.
1972 The Foundations of Factor Analysis. New York: McGraw Hill Inc.

Musella, Donald, and H. Donald Joyce.
1973 Professional development needs of educational administrators, OCLEA, 4:12-15.

Reeves, A.W.
1961 "Skills of an effective principal." in L.W. Downey (ed), Skills of An Effective Principal, Edmonton, The Policy Committee, Leadership Course for Principals.

Saxe, Richard W.
1966 Student Teaching: What is the Principals Role? Illinois Education, 55:104-106.

Stemnock, Suzanne K.
1971 Evaluating Administrative/Supervisory Performance. Educational Research Service. Circular No. 6.

Wood, Jack M.
1973 Comparative Perceptions of Educational Goals. Unpublished M. Ed. Thesis, University of Alberta

Appendix A

Administrative Processes Questionnaire

Council on School Administration

The Alberta Teachers' Association

May 7, 1965

Dear Fellow Principal,

The Council on School Administration of The Alberta Teachers' Association has initiated a study to determine the "skill development priorities" of school administrators in Alberta. On the basis of the findings from this study the Council intends to develop skill development programs and make them available throughout the province.

The attached questionnaire is designed to provide the CSA with some of the information required for the study. Mr. James Robertson, who is conducting this questionnaire study, will also be using the data for his M.Ed. dissertation in Educational Administration at the University of Alberta.

The Council would appreciate it very much if you could complete the questionnaire and return it at your earliest convenience.

Sincerely,

A. D. Marzolf

A. D. Marzolf
President, Council on
School Administration, ATA

FACULTY OF EDUCATION
DEPARTMENT OF EDUCATIONAL
ADMINISTRATION

THE UNIVERSITY OF ALBERTA
EDMONTON, CANADA
T6G 2E1

May, 1975.

Dear Colleague,

The enclosed questionnaire is being distributed to all school principals in Alberta and will form an important part of my thesis at the University of Alberta on the Skills Development Needs of Alberta School Principals. The results will also be used by the C.S.A. in the preparation of professional development courses for school administrators.

The responses to questionnaire items are completely confidential and will be used for research purposes only. As I have no way of checking on the return of individual respondents I would appreciate your completing the questionnaire and returning it in the reply paid envelope provided as soon as possible.

Thanking you in anticipation of your co-operation.

Yours sincerely,

J.P. Robertson

(James P. Robertson.)

ADMINISTRATIVE PROCESSES QUESTIONNAIRE.

DIRECTIONS.

In your reply to this questionnaire, would you please make three responses to each item.

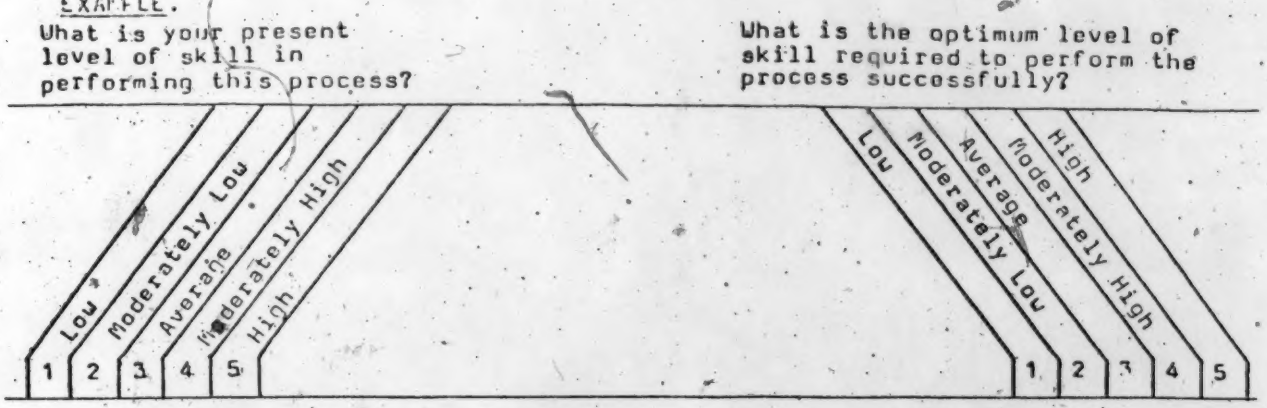
After reading each item.

1. Estimate your present level of skill in performing the given process. (Record response on the left hand side by circling the appropriate number.)

2. Estimate the level of skill required to perform the process successfully. (Record response on the right hand side by circling the appropriate number.)

3. Record the level of priority you would place upon the development of this skill, as an administrator. Circle your response on the priority scale below each item.

EXAMPLE.



1 (2) 3 4 5

1. Deciding on a program of activities which facilitate the attainment of the goals which have been identified for your school. 1 2 3 4 5

Low priority 1 2 3 (4) 5 High priority.

RESPONSE 1

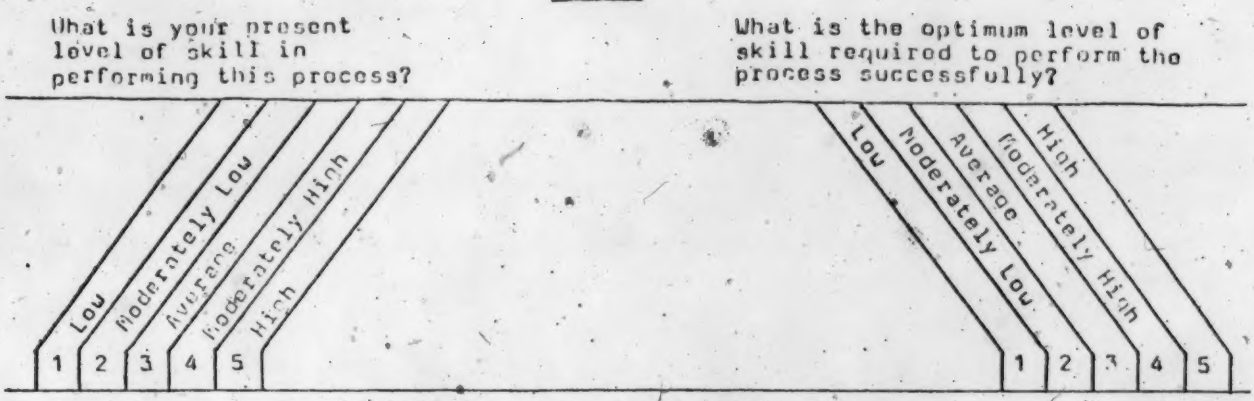
Present level of skill

RESPONSE 3

Priority scale.

RESPONSE 2

Level of skill required.



1 2 3 4 5 1. Identifying and selecting objectives appropriate to your school. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 2. Facilitating staff inputs (suggestions or contributions) into school program 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 3. Deciding on how students are to be grouped for instruction - ability streaming, parallel ability groups etc. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 4. Determining satisfactory means for measuring and reporting a students social and academic development. 1 2 3 4 5

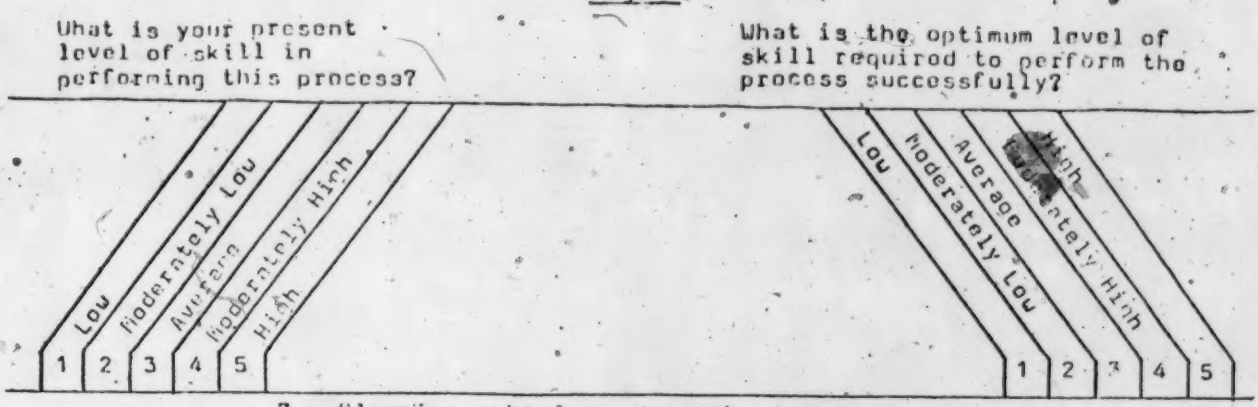
Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 5. Facilitating communication flow between teachers and yourself eg. Encouraging teachers to discuss problems and needs with you. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 6. Deciding on the form and frequency of contact between your school and its community eg. Parent Organizations, Open Days, School participation in community projects. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.


What is your present level of skill in performing this process?
What is the optimum level of skill required to perform the process successfully?
Low
Moderately Low
Average
Moderately High
High
1 2 3 4 5

1 2 3 4 5	7. Planning school management procedures eg. considering feasible and alternate methods of school management. Low priority 1 2 3 4 5 High priority.	1 2 3 4 5
1 2 3 4 5	8. Influencing the allocation of resources for school use. Low priority 1 2 3 4 5 High priority.	1 2 3 4 5
1 2 3 4 5	9. Deciding on a program of activities which facilitate the attainment of the goals which have been identified for your school. Low priority 1 2 3 4 5 High priority.	1 2 3 4 5
1 2 3 4 5	10. Influencing the provision of the resources which will encourage your staff to become involved in the school program and its development. Low priority 1 2 3 4 5 High priority.	1 2 3 4 5
1 2 3 4 5	11. Co-ordinating pupil personnel services (counselling, social health and development, medical, pupil testing,) with the regular school program. Low priority 1 2 3 4 5 High priority.	1 2 3 4 5

1 2 3 4 5 12. Predicting future staffing requirements. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 13. Motivating teachers to take part in professional development activities. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 14. Organizing a program of school community contact. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 15. Estimating needs and deciding priorities for school requisitions. 1 2 3 4 5

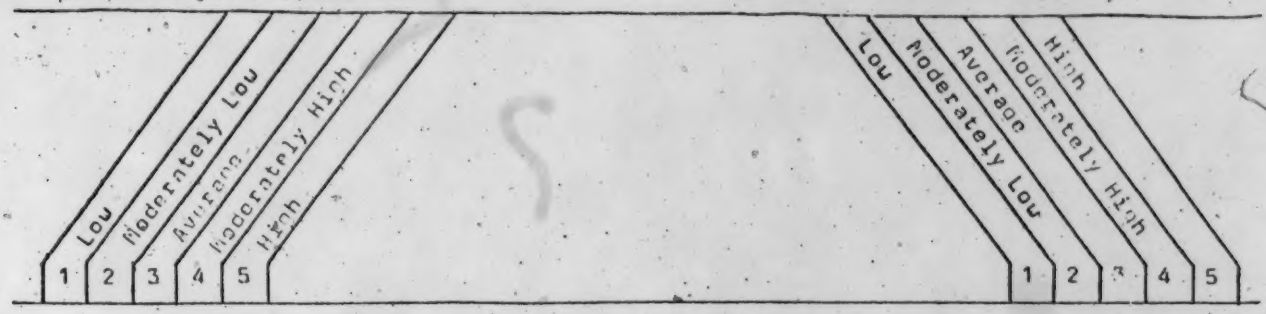
Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 16. Assessing the efficiency of your school management procedures. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 17. Deciding on what courses should be offered by your school so that their content is appropriate to needs of your students. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

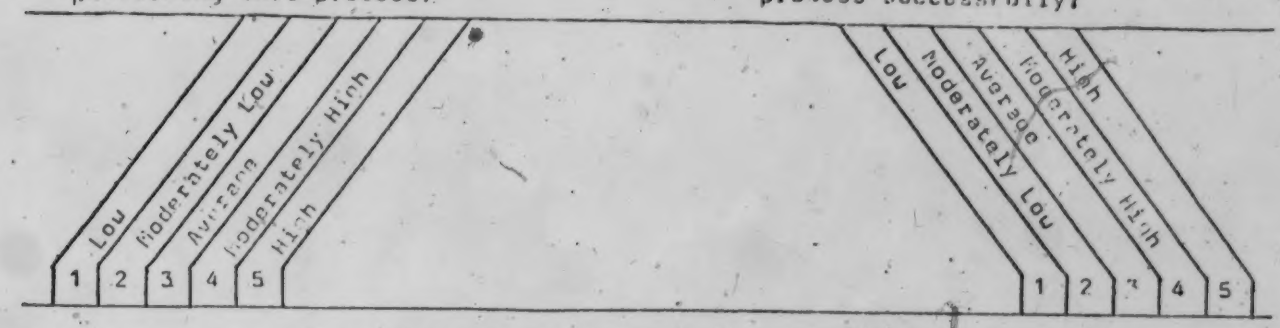


1 2 3 4 5	18. Evaluating the program in your school in relation to the goals and objectives which you have identified.	1 2 3 4 5
	Low priority 1 2 3 4 5 High priority.	
1 2 3 4 5	19. Making district or central office personnel aware of special needs of students at your school eg. Special classes, programs which you believe will benefit your students.	1 2 3 4 5
	Low priority 1 2 3 4 5 High priority.	
1 2 3 4 5	20. Selecting suitable staff or making central office staff aware of characteristics of staff personnel required to meet the needs of your school.	1 2 3 4 5
	Low priority 1 2 3 4 5 High priority.	
1 2 3 4 5	21. Evaluating and reporting upon the work of teachers eg. Report writing for central office staff.	1 2 3 4 5
	Low priority 1 2 3 4 5 High priority.	
1 2 3 4 5	22. Co-ordinating school program with activities in the schools community eg. Providing opportunity for school to participate in community activities without interfering with regular school program.	1 2 3 4 5
	Low priority 1 2 3 4 5 High priority.	

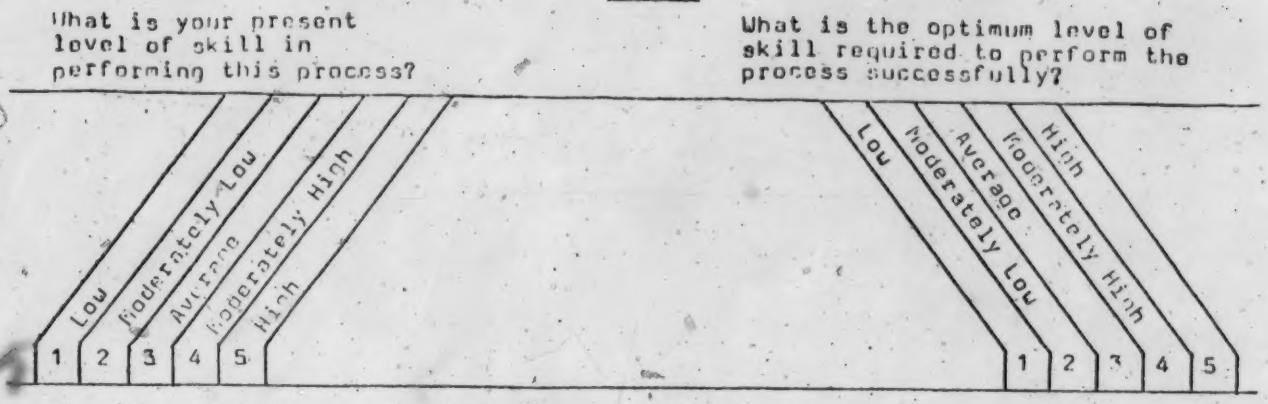
What is your present level of skill in performing this process?

What is the optimum level of skill required to perform the process successfully?

1	2	3	4	5	23. Delegating duties and organizing school management facilities.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	24. Scheduling courses to be offered by your school eg. Timetabling, Organizing individual programs;	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	25. Forecasting future enrolments of your school and determining the special needs of that population.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	26. Influencing student behaviour through pupil control procedures so as to maintain a balance between school expectations and student needs.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	27. Assigning teachers and other duties so as to meet school needs and to make use of particular skills of individual teachers.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	28. Assisting and encouraging teachers to practise self evaluation.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					



1	2	3	4	5	29. Facilitating two way information flow between the school and its community.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	30. Co-ordinating school management with your involvement in the total school program.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	31. Maintaining balance among the courses and programs offered by your school.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	32. Deciding on the types of pupil personnel services required by your school eg. (Counselling, Social Health and Development, Medical, Pupil Testing)	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	33. Assessing the adequacy and effectiveness of pupil personnel services in your school.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					
1	2	3	4	5	34. Co-ordinating the work of teachers in related subject areas and encouraging them to work as a team on particular units of work.	1	2	3	4	5
					Low priority 1 2 3 4 5 High priority.					



1 2 3 4 5 35. Planning a program of contact between your school and its community ie. Considering new ways of getting the school's community involved in the life of the school. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 36. Assessing the effectiveness of school community relations eg. Is the community aware of the school and the important part that it can play in community life? 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

1 2 3 4 5 37. Providing for staff inputs into decisions and operations which may be classified as school management. 1 2 3 4 5

Low priority 1 2 3 4 5 High priority.

PART B.

INSTRUCTIONS: Please answer the following questions by circling number of appropriate response.

1. Sex
   1. Male
   2. Female

2. How many years of teacher education are you credited with for salary purposes? (Drop fractional years.)
   1. One year.
   2. Two years.
   3. Three years
   4. Four years.
   5. Five years.
   6. Six years.

3. Age Category
   1. 20-24 years.
   2. 25-29 years.
   3. 30-34 years.
   4. 35-39 years.
   5. 40-44 years.
   6. 45-49 years.
   7. 50-54 years.
   8. 55-59 years.
   9. 60 or more years.

4. Teaching Experience (Include Present year.)
   1. 0-4 years.
   2. 5-9 years.
   3. 10-14 years.
   4. 15-19 years.
   5. 20-24 years.
   6. 25-29 years.
   7. 30 years or more.

5. Administrative Experience.
   1. 0-4 years.
   2. 5-9 years.
   3. 10-14 years.
   4. 15-19 years.
   5. 20-24 years.
   6. 25-29 years.
   7. 30 or more years.

6. School Size.
   1. 1-4 teachers.
   2. 4-9 teachers.
   3. 10-19 teachers.
   4. 20-29 teachers.
   5. 30-39 teachers.
   6. 40-49 teachers.
   7. 50-59 teachers.
   8. 60 or more teachers.

7. Administrative Assistants (Vice Principals - Department Heads.)
   1. 0
   2. 1
   3. 2
   4. 3-4
   5. 5-6
   6. 7-8
   7. 9 or more.

8. School Type.
   1. Primary.
   2. Elementary.
   3. Junior High.
   4. Senior High.
   5. Grades 1 to 9.
   6. Grades 1 to 12.
   7. Other (Please Explain).....
      .....

9. How would you classify your school?
   1. Urban.
   2. Rural.

10. Is the majority of your time taken for teaching or administrative duties?
    1. Teaching.
    2. Administration.

THANK YOU FOR YOUR CO-OPERATION.

Appendix B

Matrix of Questionnaire Items Related to the Miklos Matrix of Administrative Processes in Five Areas of Educational Administration

Table 34

Questionnaire Items Related to the Miklos Matrix of Administrative Processes in Five Areas of Educational Administration

Processes \ Areas	School Program	Pupil Personnel	Staff Personnel	Community Relations	Management
Planning	1	25	12	35	7
Decision Making	9, 17	32	20	6	23
Organizing	24	3	27	14	15
Co-Ordinating	31	11	34	22	30
Communicating	2	19	5	29	37
Influencing	10	26	13		8
Evaluation	18	4,33	21, 28	36	16

Appendix C

Table of Frequencies of Responses to Each Questionnaire Item

Table 35

Frequencies of Responses to Each Questionnaire Item

	Priority Scale														
	LOW	MODERATELY LOW	AVERAGE	MODERATELY HIGH	HIGH	Low				High	LOW	MODERATELY LOW	AVERAGE	MODERATELY HIGH	HIGH
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	6	45	281	211	32	3	13	83	247	205	2	2	69	321	181
2	3	24	187	298	60	1	11	92	280	164	0	81	89	327	148
3	3	53	268	204	48	12	49	173	206	111	8	15	182	254	116
4	10	56	289	195	25	8	28	148	259	108	2	10	147	294	122
5	4	27	158	275	107	1	7	54	235	250	1	2	57	264	247
6	11	64	265	197	38	6	28	200	224	93	0	11	177	282	105
7	12	73	259	183	37	9	40	206	232	53	2	18	172	288	84
8	7	34	232	237	55	5	29	195	235	77	1	17	167	287	93
9	3	44	253	233	34	3	12	95	251	182	0	6	89	284	188
10	7	54	254	229	22	3	18	146	271	99	2	7	137	297	123
11	12	84	250	176	45	12	53	209	207	63	1	27	217	224	99

Table 35 (Continued)

	LOW 1	MODERATELY LOW 2	AVERAGE 3	MODERATELY HIGH 4	HIGH 5	Priority Scale Low 1	2	3	4	High 5	LOW 1	MODERATELY LOW 2	AVERAGE 3	MODERATELY HIGH 4	HIGH 5
12	16	45	211	220	80	30	68	179	186	85	14	42	217	201	98
13	18	129	271	132	21	11	43	194	235	64	6	22	197	248	98
14	25	92	261	160	34	17	48	206	214	63	5	18	209	241	99
15	6	49	227	231	60	9	52	220	207	61	5	37	206	247	78
16	17	98	292	142	22	12	57	207	214	57	4	26	178	277	86
17	9	36	227	249	50	11	16	110	238	172	4	12	123	247	185
18	2	84	280	185	22	2	16	113	268	150	1	9	105	272	186
19	15	33	201	254	70	2	21	128	256	142	1	12	129	264	167
20	13	46	161	251	102	4	22	103	218	202	2	11	107	254	199
21	41	130	238	136	27	69	108	173	151	47	23	64	175	201	109
22	31	102	283	128	25	34	80	268	136	28	15	41	279	192	42
23	4	42	224	241	58	4	24	197	233	87	1	9	163	283	113
24	7	31	180	249	102	7	36	148	240	114	4	17	143	262	143

Table 35 (Continued)

	LOW	MODERATELY LOW	AVERAGE	MODERATELY HIGH	HIGH	Priority Scale					LOW	MODERATELY LOW	AVERAGE	MODERATELY HIGH	HIGH
	1	2	3	4	5	Low 1	2	3	4	High 5	1	2	3	4	5
25	14	64	248	203	41	24	65	214	179	65	7	36	223	221	83
26	3	32	199	281	52	6	13	132	245	148	3	9	106	272	177
27	7	25	174	295	67	3	14	87	285	156	0	7	100	289	172
28	21	142	275	113	17	6	33	127	266	113	1	15	117	281	154
29	6	54	289	190	34	6	23	183	238	99	0	15	177	268	113
30	3	31	304	203	30	4	23	231	208	71	1	10	214	258	88
31	6	22	277	233	34	14	27	215	215	77	6	15	207	266	78
32	17	53	291	178	30	17	50	210	205	63	8	28	218	235	80
33	11	79	303	158	20	16	45	227	209	50	5	22	227	242	75
34	13	89	257	184	28	9	28	160	238	112	2	13	151	270	135
35	18	105	288	138	20	19	46	206	202	72	5	34	179	249	102
36	10	98	282	147	30	9	37	208	210	78	4	25	178	265	95
37	3	15	177	295	74	2	19	123	287	109	4	7	128	294	131

Appendix D

Factor Loadings and Communalities of 37 Questionnaire Responses Related to Actual Level of Skill on Five Factors

VARIMAX ROTATED FACTORS

	COMMUNALITIES	1	2	3	4	5
1	0.409	0.561	0.030	0.043	0.278	0.121
2	0.302	0.292	0.091	0.438	0.116	-0.060
3	0.247	0.152	0.066	0.055	0.242	0.397
4	0.233	0.340	0.038	0.250	0.136	0.187
5	0.442	0.290	0.108	0.524	0.177	-0.200
6	0.443	0.117	0.636	0.105	0.098	-0.061
7	0.325	0.430	0.055	0.263	0.222	0.136
8	0.428	0.145	0.154	0.037	0.618	-0.026
9	0.478	0.592	0.081	0.191	0.238	0.167
10	0.451	0.374	0.118	0.289	0.461	0.027
11	0.312	0.333	0.184	0.045	0.128	0.385
12	0.450	0.035	0.033	0.256	0.567	0.248
13	0.444	0.603	0.250	0.128	0.025	0.033
14	0.585	0.099	0.733	0.010	0.142	0.133
15	0.458	0.125	0.043	0.053	0.626	0.213
16	0.359	0.495	0.067	0.080	0.201	0.250
17	0.417	0.263	0.110	0.337	0.371	0.291
18	0.573	0.685	0.122	0.132	0.062	0.260
19	0.355	0.259	0.227	0.248	0.430	0.007
20	0.504	0.218	0.154	0.252	0.567	0.216
21	0.359	0.430	0.131	0.071	0.063	0.384
22	0.460	0.034	0.609	0.071	0.191	0.215
23	0.390	0.333	0.008	0.456	0.265	0.024
24	0.443	0.042	-0.058	0.623	0.092	0.205
25	0.450	-0.065	0.110	0.473	0.130	0.439
26	0.408	0.237	0.183	0.446	-0.091	0.334
27	0.432	0.367	0.090	0.508	0.173	0.041
28	0.437	0.553	0.231	0.205	0.066	0.176
29	0.548	0.182	0.697	0.080	0.074	0.131
30	0.362	0.352	0.223	0.367	0.163	0.163
31	0.449	0.093	0.057	0.554	0.134	0.336
32	0.543	0.199	0.143	0.094	0.119	0.678
33	0.517	0.301	0.169	0.122	0.117	0.608
34	0.430	0.581	0.189	0.224	0.074	0.006
35	0.700	0.143	0.812	0.081	0.020	0.114
36	0.625	0.222	0.728	0.175	0.035	0.119
37	0.390	0.122	0.241	0.553	0.103	0.028
	16.155	4.241	3.591	3.277	2.622	2.425
PERCENT OF COMMON VARIANCE						
	100.000	26.249	22.229	20.284	16.227	15.012
PERCENT OF TOTAL VARIANCE						
	43.663	11.461	9.706	8.857	7.085	6.555

TRANSFORMATION TO OBLIQUE REFERENCE